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ART. I.—COINS, WEIGHTS, AND MEASURES.

In the first place and to dissipate any erroneous impressions which may be formed from such a juxtaposition of terms as exists in our title, it is distinctly affirmed that we have fancied no kind of analogy beyond the most remote, between the coinage, currency, or money of a country, *deemed* to represent its wealth and the system of weights and measures applied to the division of that wealth.

The terms are classed as of kindred commercial importance and the sole purpose of the present essay is to present upon each such general principles, facts, and statistics as will lead to its clear and correct elucidation.

That there are difficulties and perplexities to be encountered, will not be denied, since statesmen and philosophers in every age have found them, and libraries now groan under the material which they have accumulated. But nevertheless that there has been a greater degree of complexity imagined than really exists, we shall endeavour to show.

And first then of *coinage, currency or money*.

It is a very common mode of investigation, first taught by John Locke, to refer back to the origin of society, and of things, and mark their progress thence. We adopt that mode. Certainly there was a period when the man himself was the producer and manufacturer of every article of his consumption—when he did not as it were go out of himself—when the germs of every art existed in him, without an idea of their distribution. With few wants how easy were their gratification. A unit then, an independent existence, man so remained until the developement of the social principle sent him into society. In this rude stage, little was there above brute nature. There will be as little again

if they are to be heard, whose doctrines legitimately extended, lead us back to this, by destroying at "one fell swoop," all the precious results of a *distribution of labor*; results which the Roman poet might well have introduced in his eloquent passage on the progress of society:

Inde casas postquam, ac pefles ignemque pararunt
Et mulier conjuncta, viro concessit in unum
Castaque privatee veneris connubia leta
Cognita sunt, prolemque ex se videre creatam
Tum genus humanum primum molescere ecepit.

But remove man a single degree from this. Let him perceive how dissimilarly God has endowed us with faculties. How much more superior in certain respects a neighbor is, and how much more inferior in others. Let him mark, too, higher skill, in pointing an arrow or a rock than he possesses, or vainly emulates. If his own experience be of service, let him learn that expertness is the offspring of practice, and that practice is a thing of time, toil, and labour, which cannot be given by the same man to all things in the space of a brief life. These will be the first great lessons of political economy. They will break up the unities of which we have spoken—they will amalgamate them, and men henceforward will be found reciprocally employed in each other's service.

Society and civilization, however, are things of slow growth, and we have but arrived at the origin of barter, which will not long suffice.—The hunter may find it very well to part with a portion of his venison for a brace of ducks, or a handful of fish, but might it not happen that the proprietor of the ducks, or the fisherman is already supplied with venison, sufficient for his wants? What is there for the hunter in this contingency? He must return disappointed; or seize by main force what has been denied his appetite, which we are at liberty to suppose him physically incapable of doing; or finally, and what would be by far the most prudent course, he must acquire something desired and not possessed, or not possessed in sufficient quantities by those, with whom he would act, and which they would regard as an equivalent for their property. Now the fisherman may be often supposed in the same condition as the hunter. How shall these men then meet each other at all times upon common ground and enjoy their mutual products?

The most obvious reflection which occurs here, is that some one commodity of universal requisition and demand must be sought, to conduct the exchanges, which have become too complicated to be conducted *in kind*. For this each man will barter his wares because assured that other wares of whatever description, or at whatever season may be bartered in turn for it. Is there such a commodity!

Amongst the Mexicans, when the Spaniards invaded their country, it was discovered that grains of cacao, were gaining circulation as a medium of exchange. The grounds of this preference can only be traced in the fact, that cacao was a scarce commodity, and one in general estimation. If a mere arbitrary choice were absurdly supposed, why not then as well a choice of pebbles or shells?

The early Greeks were wont, as every classical scholar will remember, to estimate the value of their commodities by the number of oxen which they had cost, or for which they could be exchanged. Thus in Homer we find the valuation of the arms of Diomedes and Glaucus :

For Diomed's brass arms of mean device,
For which nine oxen paid (a vulgar price)
He gave his own, of gold divinely wrought,
A hundred *beees* the shining purchase bought.*

It would be easy enough to advance in this manner illustrations from other countries. Thus the Carthaginians adopted leather, which some suppose a kind of substitute for bank notes, as the precious metals were abundant enough with them, the Lacedemonians adopted iron, and the Romans copper, the Abyssinians salt, the Britons of the time of Caesar iron and brass, the Saxons live stock, the Maldivian Islanders Cowries, and of later day we find cod-fish adopted at New Foundland, tobacco and rice in early Virginia and Carolina, and even pork, horses, &c., in some of the Western States, and the Chinese now coin their money of copper only, and regard gold and silver as articles of mere merchandize.

In each of the cases above stated, the *commodity* so dignified as the medium of conducting the exchanges of all others, became in every sense the *money* of the country, without having lost any thing of its character as merchandize. It may have appreciated in value somewhat from the circumstance, but it was impossible at the same to change its nature.

At the present day the whole civilized world have agreed upon certain commodities, which shall be considered amongst them by consent, and from their intrinsic value, and usefulness as equivalents, in due proportions, for all others—*these commodities are gold and silver*. Will any man in his senses maintain that these metals have become by this

* Iliad VI. It may be a question after all, however, whether these were real *bona fide* "beees," for the Greeks had a coin termed *bous*, ox, from the fact of an ox being stamped upon it, as we learn, from the classics, though coinage in Greece can hardly be deemed as ancient as the wars of Troy. It is a little remarkable too, that the Latins should have called their coins *pecunia*, from *pecus*, a herd or flock stamped upon them. Their word *moneta*, money, being derived it is thought from *moneo*, to mark, that is to mark the fineness or weight.

act, in any other sense, money than the Greek live oxen, the Roman brazen *as*, or the Abyssinian salt? And yet this has been done.

We have gained something when we come to regard money as a mere commodity—"the commodity exchanged most frequently for every other," and like these others worth only as much as it will sell for in the markets of the world. There is nothing to exempt it from the fluctuations of trade; and to entitle it a *standard* of value, would be the same as to affirm that a thing may be fixed and fluctuating at the same time. A cubic inch of water may be a standard for we shall find it of the same absolute weight at the equator, as at the pole, now as a thousand years before the deluge.*

Regarding money as a *commodity* regulated by the laws of supply and demand, and by all the other laws which regulate other commodities, we discover at once the absurdity, as well as the wickedness of all attempts to elevate or depress its value, on the mere mandate of an emperor or of a parliament. Canute, the Dane, commanded as wisely the sea to stay its advances. But we discover more and what will be of great practical value to us, that money or gold and silver may be in excess in a country, from some temporary cause, and in commercial phraseology "glut the market" just as we see it glutted occasionally by cotton or any other staple. The same disease will require the same remedy and the nation will at times be gaining wealth by the exportation of its specie or money, or in the reverse losing wealth by its absurd retention.

They are mistaken then who regard the precious metals as the mere *representatives* of wealth. They are wealth themselves, and no arm of power can cause them for any time to be received for a fraction beyond their intrinsic value. Otherwise we should not so much look to the material as to the "superscription" or stamp.

They are equally mistaken who would regard money as a *measure of value*, or wealth. For how can that be a measure which has no fixed value itself, and how can values have a fixed measure, when they are merely relative terms?

Were money the representative and measure of wealth, it would follow that the representative and measure must be precisely equal in value to the thing represented and measured, and that the sum total of all the money in any country, would exactly express the wealth of that coun-

* Adam Smith remarks: The price of gold and silver, when the accidental discovery of more abundant mines, does not keep it down, as it naturally rises with the wealth of every country, so it is at all times naturally higher in a rich than in a poor country. Gold and silver like all other commodities seek the market where the best price is given for them. *Wealth of Nations*, I vol., 295, p.

try. Now this is sheerly absurd, since we know that the proportion which money bears to other commodities is but a mere item. Of no other use than to conduct exchanges, how can it at all apply to that immense proportion of every nation's wealth, which is consumed without exchanging, or which is exchanged in kind, or finally, exchanged by mere transfers from one side of a ledger to the other? We shall see this more particularly hereafter.

Can all money be regarded as on the same par as the precious metals, for instance bank notes? Have they *intrinsic* value? Clearly not. They are then merely *representatives*, they answer for something else; are not commodities, not values, not wealth,* *not money* in any sense that gold and silver have come to be regarded money or that salt or oxen became money in other days. It is their *representative* character which gives them value, and we are yet to learn that that character would be changed in kind though it might be in degree, if these bank notes *represented* lands or sugar instead of specie; or that their character would not sink altogether and be lost, were it found, as it too often fatally is, that they *represent nothing at all*. Paper bills are the growth of a system of credit, and have much to do with the confidence which man has in his fellow man. Where they do *not* represent commodities, dollar for dollar, they furnish facilities for making a little wealth control a great deal, and have their convenience and economy, perhaps, in the operations of commerce; which, sometimes, however, they most grieve-

* If gold and silver be wealth, are they productive wealth? Mr. Tucker considered that the expense of metallic currency, including the wear and tear of metals, the cost of coinage and interest on the value of material, amounted to 5 per cent. on the whole capital of New York. He, however, included paper as well as metals in the currency. Mr. Webster, in 1838, estimated the whole currency of the Union at \$130,000,000; of which, perhaps, \$70,000,000 was specie, (*Tucker on Money and Banks*, p. 58.) The metallic currency of Britain was at the same period, \$150,000,000. The following table showing the proportion of gold and silver to other currency, and the condition of the banks in 1838, will be found of interest:

Table showing the number and condition of all the Banks, in the United States, on the 1st January, 1838, according to Mr. Woodbury's Report.

Local Division.	No. of Banks	Capital.	Principal Debts.			Principal Assets.	
			Notes in Circulation.	Deposits.	Specie.	Loans, &c.	
Eastern States,	321	65,257,546	18,307,544	11,412,803	2,902,980	93,575,135	
Middle "	213	81,169,776	29,631,248	31,999,806	9,937,187	127,740,077	
Southern "	89	32,111,573	20,156,891	9,707,821	6,145,384	55,337,073	
Southwestern,	94	75,048,052	25,194,559	18,874,996	4,984,616	122,305,066	
Western,	92	29,049,837	16,080,601	10,178,505	7,443,103	40,492,662	
Penn. Bank, U.S.	20	35,000,000	6,768,067	2,617,253	3,770,842	45,181,854	
Total,	829	317,636,778	116,138,916	84,691,184	35,184,112	484,631,867	

uously embarrass and destroy. Of this experience our country has had abundance.

But enough here for the present. It was only necessary to show the origin of money and its true nature, which we think have been quite sufficiently done for the satisfaction of every reader, and in the most incontestable manner. We return to the first division of our general subject, which admits of this plain distribution :

I.—*The Material used for Coinage or Money.*

II.—*The History of Coins.*

III.—*The Interference of Government with Coins.*

IV.—*The Value of Ancient and Modern Coins.*

V.—*American Coinage.*

I. There are many reasons to be assigned for the universal preference given to gold and silver, for purposes of coinage and currency. There is not, perhaps, another substance in nature which would meet all the requisitions so well as these. Let us note these requisitions :

1. That the material be durable ; i. e., not deteriorate with time.
2. That it possess great value in small bulk.
3. That it exist only in limited quantities, or be susceptible only of such gradual increase as the convenience or wants of the world may demand ; or in plain terms, that its exchangeable value do not vary as rapidly as that of other commodities. Thus, had gold and silver ever been produced by the alchymists out of base metals, as was the dream of early miscalled science, they must have been abandoned, and the material for money sought from other sources. Or should the working of the Asiatic mines prove as productive as present facts indicate that they will, the proportionate value of gold and silver must be greatly altered, if the last metal do not become ultimately the most valuable of the two. In fact, it has already been stated by a late French journal, that Siberia contains gold in such abundance, that its discovery is likely to produce a financial revolution in Europe, similar to that which took place on the discovery of Peru.* Within fourteen years, the gold product of Siberia has doubled ; and all that is required, it is stated, to produce any quantity, is the force to work the mines. Platinum has sometimes been mentioned as an ultimate resort, and the Russians have set the example of coining it, but this metal is liable to the great objection, that the supply may be indefinitely increased should there exist a demand.
4. That the material wherever produced, in all times and in all places, should present the identical same qualities and the identical fineness.

* See Bankers' Magazine, No. 2, p. 125, Baltimore.

5. That it be capable of division into small portions of the same weight and fineness, so that purchases of all magnitudes may be made with them.

6. That it be readily stamped, marked or coined, so as not to be easily effaced.

7. That it possess naturally, or may be made to do so by means of alloy, hardness sufficient to resist friction.* This alloy counts, however, for nothing in the value of the coin. In the French silver coins we are told by Say, it is of copper of the value of 1-600 of the whole; the five franc piece weighing 25 grammes, contains $2\frac{1}{2}$ gr. alloy. But of alloys and friction hereafter.

Is there then a sufficiency of gold and silver to answer all the purposes of commerce in conducting the exchanges of the world, to say nothing of the immense demand for them in the manufacture of plate and jewels, and for other luxurious uses, and the considerable annual loss by friction? We shall consider this.

1. By an extract from a high authority, approved over and over in our country. "Notwithstanding the apprehensions so frequently expressed among ourselves, lest the United States might not possess a circulating medium large enough for the business purposes of the community; it is a matter of not the least importance whether this medium be great or small. Whatever in any country may be the amount of it, if we suppose it to be reduced to the tenth part of that amount, the prices of things will only become one-tenth of what they are; and a hundred dollars will perform precisely the same functions now performed by a thousand."† The only inconvenience would be that the divisions might become inconveniently small to satisfy minute values.

2. The quantity of money really necessary for exchanges is much less than is usually imagined. Thus, when 2200,000,000 francs was the whole currency of France according to Neckar, the agriculture alone of that kingdom, according to Arthur Young, amounted to 11,000,000,000 francs, and in Great Britain, when the whole capital of the country was valued at £2300,000,000 sterling, the specie medium was estimated only at £47,000,000. We are told also by Say, that in his time, about the beginning of the present century, England required to effect her sales

* Vethake, Pol. Phil. p. 25.

† Vethake, Pol. Ec., p. 174. If the thirty three millions of coin, said Mr. Shields, of Alabama, in the Congress of 1841, in the vaults of the banks of this Union were thrown into circulation, and every bank note in the Union burnt up or banished from circulation, it would require but the *one hundredth* part of the stock of gold and silver now in use in the world, to supply the country with an amount of metallic money equal to that of paper now in circulation.—*Gouge, Journal of Banking*, 106.

and purchases, an agent equal only in value to 1,284,000 lbs. weight of gold, or what is the same thing, 1200,000,000 lbs. sugar, or what is still the same, £60,000,000 sterling.*

The whole gold and silver medium of a country does not, however, exist in coinage. Much of it is melted into the form of bars, assayed and stamped at the mint, which determines their weight and the degree of fineness of the metal. These are entitled *bullion*. In this form it becomes more strictly an article of commerce in an economical manner, and its value may easily be determined. It is, perhaps, to be regretted that the plan in relation to bullion, is not in every case adopted by Government, even in the smallest coinage. Let the piece be simply stamped by authority, to prevent fraud, without any attempt to fix a value to it which must ever be changing; and let the world always be supposed wise enough, as it abundantly is, in every instance, to determine that value from the stamp. There is as much wisdom in fixing the price that a barrel of flour shall sell at, as there is in fixing the price of a gold piece, termed an *eagle* or a *sovereign*, of such a degree of fineness and of such a weight.

So soon as gold and silver became articles of exchange or money, some chemical mode of determining their degree of purity became at once necessary.† This much of science must be as ancient, though, perhaps,

* Vethake, Pol. Ec. p. 174.

† GOLD is found only in the native state, that is without ores. Crystals, irregular, generally octohedron and dodecahedron; dissolves by mixed nitric and muriatic acids; specific gravity 19.3 water being 1; great ductility and malleability; found in rocks, in the bed of streams, and in alluvial deposits, sometimes in iron and other ores; exists in all parts of the world; found sometimes in masses of 20 to 50 pounds, pure. The American gold region according to *Silliman's Journal*, is a thousand miles square in North Carolina alone. The whole gold region in the United States extends from Canada to the southwestern boundary of the Cherokee nation in Georgia, and from the Rappahannock in Virginia, to the Coosa, in Alabama. (*Com's Chem.*, 236.) The degree of purity of gold is expressed by the number of parts of that metal contained in 24 parts of any mixture; thus gold which in 24 such parts, termed *carats*, contains 22 of pure metal, is said to be 22 carats fine.—*Henry's Chey.* 1, p. 134.

SILVER.—Found native, also combined with sulphur and mur. acid, also with other metals; crystals cubes and octohedrons; soluble in nitric acid; found in South America, Saxony and Suabia, Bohemia, Norway, Ireland, part of England, parts United States, particularly Connecticut, New Hampshire and New York; has been found in masses of 100 to 560 lbs.; specific gravity according to *Henry*, 10.51.

The following table is worthy of note:

Product gold region United States, from 1824 to 1838—15 years.

Virginia, - - -	\$ 482,000	Tennessee, - - -	13,900
North Carolina, - -	2,648,000	Alabama, - - -	1,000
South Carolina, - -	340,500	Other places, - - -	12,400
Georgia, - - -	1,799,900	Total, - - -	\$5,298,200
Average annually, \$333,213.			

in much imperfection, as the first attempt at coinage. These chemical tests, etc., are what is understood as assaying. Let us then determine the antiquity of coins.

II.—*The History of Coins.*—The books of Moses are our most ancient records. They inform us that Abraham "was rich in cattle, silver and gold," and that he weighed out four hundred shekels of *silver*, "according to the currency of the merchants." From this nothing is learned of coinage; but his great-grandson, Joseph, was sold for twenty pieces of *silver*, and afterwards presented his brethren with three hundred pieces. Now were these pieces all weighed out or were they coined? Calmet determines the former, for in his Biblical Dictionary he affirms that in the whole history of the Hebrews, there is not one word of coined money, of any dimension; nothing to show the form of the money or the thing represented upon it.*

Julius Pollux attributes the first coinage to the Queen of Pelops, who went into Greece with her husband, from Phrygia, 1200 years B.C.†

The Lydians, who flourished 500 years B.C., are said by Herodotus to have been the first people who coined money; but fabulous history has ascribed the invention to the reign of Saturn and Janus, in Italy.‡

Coins were of common use in Greece, however, we are told, in the time of Solon, B.C., 600§ but it is stated on other authority, that Philip of Macedon first coined in that country, and that his pieces were termed *philipi*.

The Sicilians coined gold and silver, 500 B.C.; and specimens are exhibited at this day in the cabinets of the curious.

It is well ascertained that at the time of Darius, in Persia, there were gold coins termed *darics*, after the monarch; and that with 30,000 of these, he bribed Agesilaus, King of Sparta. Herodotus, also, says, of an earlier Darius, that his gold and silver were melted and poured into earthen pots, and that when wanted pieces were broken off.

No Roman coins date further back than 266 B.C., and these are of silver, though copper had been coined, it is said before. Seventy years later gold was coined, and the *aureus* of this metal was worth, at the time of Augustus, about 20 sh. of our money, when the whole coinage of Rome was estimated at £358,000,000 sterling.

A mint was established in Britain, B. C. 14, for coinage of gold, silver and brass, of which coins, we are told by Macpherson, forty specimens have reached our time.

* Page 678. † Macpherson's Ann. Com., vol. 1, 16.

‡ Br. Encyclopedia, art. coins. § Escheburg, Man. Clas., Lit., p. 73.

The Francs were permitted, in the sixth century, by the Emperor, to coin their own money.

In the age of Charlemagne, 750, such had been the exhaustion of gold and silver from the perpetual wear and tear of the metals, from the inroads of barbarism, and the consequent cessation of all kinds of industry, including the working of mines, that the enormous sums mentioned in antiquity, had declined almost to nothing, and there were scarcely any of the precious metals in circulation in Europe. Copper, tin and iron* were the chief substitutes, and the Jews were the only traders and repositories of the finer coins.†

During the middle ages, the privilege of coining was hereditary in many families, and in England, at the time of Ethelred, 1017, there were about forty petty mints, and the moneyers, whose names appeared upon the coins, numbered two hundred and forty-three. The Bishops and Abbots were licensed coiners—the stamp being sent them from the Exchequer. In the reign of Henry VI. but eight mints remained, in that of Henry VII four, Edward VI three, and Queen Elizabeth maintained but a single one in the Kingdom, viz that of London.‡

In the tenth century, so scarce had money become, that the whole amount existing in Europe, is estimated by Jacobs as only about £33,000,000 sterling, and so precious was its value, we are told by Dr. Henry, that prices ranged according to the following table, in money of the present day :

	£	s.	d.
Value of a Slave,	2	16	3
" " Horse,	1	15	2
" " Ass or Mule,	14	1	
" " Cow,	6	2	
" " Hog,	1	10	
" " Sheep,	1	2	
" " Goat,			4

In the thirteenth century, a ransom of three millions crowns was demanded by the English for their prisoner, John of France ; in money of the present day, £1,250,000 sterling. The sum was deemed enormous, and the first payment, a *fifth* of the whole, found so great, and France was so exhausted, says Voltaire, that it could not possibly be furnished. The only expedient was to recall the Jews, and sell to them

* We are told by Voltaire, that copper and iron were in early use among the Swedes, as money : La banque publique, qui est la plus ancienne de l'Europe y fut introduite par nécessité, parceque les payees se faisant en monnaie de cuivre et de fer, le transport était trop difficile : Histoire de Charles XII, p. 27.

† Jacobs on the Precious Metals, 162-165.

‡ The standard money was first called *sterling* in the reign of the Conqueror—derivation not clear ; to say from the Easterling coiners, would be an anachronism. Mep. An. Com.

the privilege of trade. The successor of John was forced on account of this ransom, it is said, to pay for the necessities even of his household, in money of leather, through which a *silver nail* was driven.

As late as 1496, the daughter of Edward III, married to Lord Howard, was allowed by authority £1 1s. per week for her "sustenation and exhibition, and convenient diet of meat and drink," with a further allowance of £80 12s. per year for eight servants; a gentlewoman, a woman, a girl, a gentleman, a yeoman and three grooms; and £25 10s. 4d. for seven horses.

During this period the delusions of alchemy were at their height, and the great farce of Raymond Lully was enacted. This impostor pretended to have discovered the "philosophers stone," and being thrown into prison, it is said that he made gold even there, with the inscription upon it : *Jesus autem transiens medium eorum ibat*, intimating that as our Savior passed among the Pharisees, so that gold was made by an invisible and secret art. Many statutes were thereupon passed in England against the *multiplication of gold*, but had this been all we should only have smiled ; it is discovered, however, that various acts of Parliament were passed from 1307 down even to 1622, against the *exportation of gold and silver*, which were not at all more wise than contemporary statutes against the exportation of wool.

The opening of a new world at last in the fifteenth century occasioned a revolution in the finances of Europe, for the untold mineral wealth, the inexhaustible gold and silver resources of that world, were poured bounteously into her lap.

The following table, made up by us from Jacobs, (and obtained by him from Rudings Annals of the Coinage of Britain), and from other authentic sources, will show the great advances in the operations of the English mint from the reign of Edward II, 1307, to the present day :

GOLD AND SILVER RECEIVED AT THE MINT.

			Money of that day.	Money of this day.
Reign	Edward II, 20 years,	-	£ 15,992	£ 46,177
"	Edward III, 50	"*	194,079	473,703
"	Richard II, 22	"	7,095	15,849
"	Henry IV, 14	"	12,620	21,927
"	Henry V, 9	"	31,636	66,148
"	Henry VI, 39	"	70,692	141,349
"	Edward IV, 24	"	150,493	240,788
"	Henry VII, 24	"	76,917	120,328

By comparing these amounts with those which succeed immediately after the opening of the American mines, the great improvement will be marked.

* Up to the 18 Edward III, the gold coinage has not been ascertained.

Reign Queen Elizabeth, - £ 1,200,000*	Reign Queen Ann, 13 years, £ 3,102,743
" James I, 23 years, - 5,473,666	" George I, 14 " - 8,725,921
" Charles I, 35 " - 13,241,732	" George II, 37 " - 11,966,576
" James II, 4 " - 4,228,753	" George III, 61 " - 82,750,706
Wm. & Mary, and W. III, { 9,434,963 12 years.	" George IV, 9 " - 34,363,868 From 1817 to 1831, 14 " - 47,000,000†

From the year 1492, according to Humboldt, to 1500, America alone furnished to Europe £52,000,000 sterling in the precious metals, and up to 1519 the same enormous yield is supposed by Jacobs to have continued. The effects of the rapacity, extortion and crimes of such men as Cortes, Pizarro and others, were such that in fifty years from the discovery of America, the quantity of gold and silver had doubled in circulation in Europe, and reached the amount of £50,000,000.

A new use, however, began to be found for the metals, or one which, during the dark ages, had almost been entirely neglected, viz. the manufacture of ornaments and plate ; these metals began too to be exported to Asia, but notwithstanding all of this, so great did the imports continue, that in the year 1600 the coinage of Europe alone reached £130,000,000, having multiplied *four fold* in a century.‡

The seventeenth century brought with increased wealth, refinement and luxury into Europe, and a more extensive manufacture of the metals and exportation into Asia ensued, so that at the end of it, notwithstanding the steady yield of the mines, the coinage of Europe is not supposed to have exceeded £397,000,000 sterling, or an increase of 150 per cent. in one hundred years.

The products of the mines of America, Europe and Africa, during the eighteenth century, is stated to have been £870,000,000 sterling, of which America alone produced £786,000,000. The estimated coinage of the world in the year 1808 is made by Jacobs, thus :

Coin existing in 1700, reduced by friction,	£226,000,000
Millions.	
Produce mines,	880
2/3 exported to Asia,	352
	528
2/3 manufactured,	352
	176
Friction for 109 years,	22
	154,000,000
Stock coins 1809,	380,000,000

* From Mepherson, who only gives the gold coinage.

† McCulloch.

‡ Jacobs, on the metals, 200.

From 1809 to 1830 the unsettled and revolutionary condition of Mexico and South America, and the already over worked and partially exhausted condition of their mines, caused a great declension in the trade of the precious metals. The average annual yield of the whole of this mining country, fell from about eight millions sterling to something like five millions. The United States had, however, begun the working of the metals on a small scale in native mines, and also the Russian Empire. The whole coinage, therefore, of 1830, is supposed to have been 313 millions sterling, a reduction of sixty millions in 23 years.

Humboldt calculated in 1804 that there were three thousand mines in Mexico, of which we are told by Gen. Thompson, not $\frac{1}{10}$ th are worked. The gold of this country is very inconsiderable. We take the following extract from Thompson's Recollections of Mexico, p. 203 :

Mr. Ward estimates the annual produce of the mines for a few years prior to 1810, at 24 millions dollars. After that period, from the revolutionary condition of the country, it dwindled almost to nothing—in one year, to three and a half millions. The official returns for 1842, show an exportation of gold and silver registered at the Customhouse, of \$18,500,000. The facility with which large values in gold may be clandestinely exported, and the temptation to do so, from the high duties on exportation, 6 per cent., caused a large amount to be smuggled ; to form any accurate estimate of the amount of the exports of specie, a very large addition must be made to this amount. Three or four millions would scarcely cover it. Add to these the amount retained in the country, and it will be very safe to assume the present produce of the mines, at from 22 to 24 millions dollars per annum. The whole amount coined at the mint in the city of Mexico since the conquest, is \$443,000,000 ; since 1690, \$295,968,750. It is risking very little to say that if Mexico was inhabited by our race, the produce of the mines would be at least five times as great as it is now. In five years, with such a population, and only of an equal number with that which Mexico now has, I do not hesitate to assert that the mineral and agricultural exports alone would nearly equal the exports of any other country of the world.

It can hardly be supposed therefore, taking in view all that has been previously remarked, that the whole hard money currency of the world, at the present day, amounts to a much greater sum than *sixteen hundred millions of dollars*. In this view we are sustained by Albert Gallatin, who published twelve or fifteen years ago an admirable paper upon the subject, an extract from which we will now furnish the reader. In a few points it differs slightly from the estimates of Jacobs. Mr. Gallatin says :

The total amount of gold and silver produced by the mines of America to the year 1803 inclusively, and remaining there or exported to Europe, has been estimated by Humboldt at about 5000,000,000 dollars, and the product of the years 1804-30, may be estimated at 750,000,000 ; if to this we add 600,000,000, the nearly ascertained product to this time of the mines of Siberia ; about 450,000,000 for the African gold dust, and for the product of the mines of Europe, (which yielded about 3,000,000 a year, in the beginning of this century), from the discovery of America to this day, and

300,000,000 for the amount existing in Europe prior to the discovery of America, we find a total not widely differing from the fact, of 7200,000,000. It is much more difficult to ascertain the amount which now remains in Europe and America together. The loss by friction and accidents might be estimated, and researches made respecting the total amount which has been exported to countries beyond the Cape of Good Hope; but that which has been actually consumed in gilding, plated ware, and other manufactures of the same character, cannot be correctly ascertained. From the imperfect data within our reach, it may, we think, be affirmed that the amount still existing in Europe and America certainly exceeds 4000, and most probably falls short of \$5000,000,000. Of the medium of \$4500,000,000 which we have assumed, it appears that from $\frac{1}{2}$ to 2-5 is used as *currency*,* and that the residue consists of plate, jewels, and other manufactured articles. It is known that of the gross amount of \$7200,000,000, about \$1800,000,000, or one-fourth of the whole in value, and one forty-eighth in weight, consisted of gold. Of the \$450,000,000, the presumed remaining amount in gold and silver, the proportion of gold is probably greater on account of the exportation to India and China having been exclusively in silver, and of the greater care in preventing every possible waste in an article so valuable as gold.

In estimating the loss by abrasion, friction, or waste of coins, it is to be observed that with the advance of science the amount has been greatly lessened. That on gold is regarded now as $\frac{1}{2}$ less in proportion than upon silver, and Mr. Jacobs, from a series of experiments made by the officers of the English mint in 1826, and previously, deduces the conclusion that of the late issues of British gold the annual loss is $\frac{1}{6}$ of the whole value, and of silver $\frac{1}{10}$ of the whole value. Thus, though the value of silver produced since the discovery of America, be three times that of gold, the loss upon it by wear and tear is four fold, showing that the relative values of these metals must be naturally undergoing a change, greatly accelerated of late, if what we have seen in relation to Siberia, be true. We cannot forbear introducing passages from two of the highest authorities recognized in our country, which show, with some precision, the changes of which we have spoken.

Before the discovery of the mines of America, the value of fine gold to fine silver was in the proportion, in Europe, of 1 to 10, and 1 to 12. About the middle of the last century, it came to be regulated as 1 to 14 and 1 to 15; that is, an ounce of fine gold was worth fourteen and fifteen ounces of fine silver. Gold rose in *nominal* value or in the quantity of silver given for it. Both metals sunk in their *real* value or in the quantity of labour they could command, but silver sunk the most.†

The relative position of gold and silver in respect to value, is by no means determined by the respective supply of each from the mines. Humboldt states, that silver is produced from the mines of America and Europe, jointly, in the ratio to gold of 45 to 1. Now the ratio of their value, instead of being 45 to 1, is only

In Mexico,	-	-	-	15 $\frac{1}{2}$ to 1
France,	-	-	-	15 $\frac{1}{2}$ to 1
China,	-	-	-	12 to 13 to 1
Japan,	-	-	-	8 to 9 to 1

* *i. e.* about \$1650,000,000; Mr. Jacobs estimated it \$1502,000,000.

† Adam Smith's *Wealth of Nations*, vol. i, 330.

The difference is probably owing to the superior utility and demand of silver for the purposes of plate, etc., as well as of money. This operates most in the East, for gold jewelry is relatively cheaper there than in our part of the world.*

III.—Under this head we come to consider the *interference of governments with the subject of coins*, and shall be very brief. The history of the world affords nothing more remarkable than this interference, which has been conducted without any regard to the principles of political economy, or even in some most melancholy instances to the principles of faith and justice. The *superscription* which our Savior referred to upon the coin of Caesar, the world was taught by its rulers to regard as the secret of the coins value. It was a notion worthy of those who under the name of protectors have been the oppressors of men. There were Caesars enough in every age to regard the whole currency as their own ; and if the affixing of a stamp was the secret of value in a piece of metal, why, then, that piece without a change in weight or quality might be made of any other value at the Sovereign's will and pleasure. This was doctrine exceedingly convenient, as we shall see ; and it is little better than the *representative* theory which some still strangely prate about. Where governments would thus assume, we agree heartily with Say, that they become *counterfeitors armed with public authority*.†

Philip I, of France, substituted four ounces of alloy for silver in the *livre* of Charlemagne, thus liquidating with his creditors, by paying three-fourths of their real dues. Many of his successors performed the same part, and often clandestinely. A French writer declares, that almost all foreign merchants discontinued then their dealings with France, and that the French traders themselves, ruined by this system of injustice, withdrew to other countries.‡ The Roman tyrant Heliogabalus was equally astute in increasing the weight of an *aureum*, after levying a tax to be paid in that coin. The *as* and the *denarius* also suffered a similar fate. Even the wise Solon, who we must suppose ignorant here, rather than criminal, by an act for the relief of debtors, *benevolently* raised the value of the *mina* from 73 to 100 drachms.§

* Say's Pol. Econ. p. 203. This was written at the beginning of this century. It will be seen that the author, therefore, cannot have considered the effects of African and Asiatic gold upon the proportionate values of the precious metals.

† But where the power is delegated to others for a *bounty*, the matter is infinitely worse. "Sire," said the celebrated Helvetius to his master, Frederick the Great, "You need not trouble yourself with reading them through, (alluding to petitions for monopolies) they all speak one language—' We beseech your Majesty to grant us leave to rob your people of such a sum ; in consideration of which we engage to pay you a certain share of the pillage.'"—*Brougham's Statesmen of the time of Geo. III.*

‡ Mathieu Villani.

§ Macpherson's Ann. Com. 1, 40.

King Edward first practically introduced this system into England, in 1301,* by coining 3d less from a pound of silver, which was a small encroachment of $1\frac{1}{2}$ per cent., but says the annalist of English commerce, it was a departure from ancient strict and honorable adherence to the integrity of the national money, and a breach once began was with less scruple enlarged. This Sovereign, forty years after, proclaimed a currency which from its too great lightness the people *refused* to receive, and he was compelled to decree that it should pass only at its bullion value. In seven years he made a further deterioration of the coin in fraud of his creditors. Henry V. and Henry VIII, both decreased the weight of their coin, and deteriorated the quality by alchemy and alloy. Elizabeth restored it to nearer the sterling purity than it had been for two hundred years, whence, according to Coke, her tomb was inscribed *moneta ad suum valorem reducta, etc.*; but James I. and Charles I. proclaimed two standards of fineness. The last named Monarch contemplated another deterioration, by which he was to gain over eight shillings in the pound weight of silver, but the iniquitous scheme was frustrated by the able and enlightened protestations of Sir Robert Cotton. So late as King William, 1696, it was thought advisable to proclaim a penalty of £5 against every one refusing to receive the abraded, mutilated and cracked coin of that period. William found it absolutely necessary to repair his coinage or establish a new one; and the question came before Parliament whether, with the same quantity and fineness of material, the crown and silver pieces should not be rated at a higher value. The discussion was protracted, but ceased at once on the appearance of a treatise upon the subject, from the pen of John Locke, the enlightened economist as well as metaphysician.

Our own country will furnish us with some experience of the same character, particularly the remarkable case of the State of Pennsylvania before the war, which enacted that a pound sterling should thenceforward be received for £1 5s. But of this in another place.

IV. In regard to the *computation of values* mentioned in ancient and modern history, it is to be remarked that many difficulties have occurred, that learned authorities have greatly differed, and sometimes widely erred. These difficulties result from the mutable valuation of the precious metals, and the variations of the quantity of them contained in particular coins.

* From the Conquest till 20 Edward III, a pound sterling was a pound troy weight of silver, divided into twenty shillings. Edward III coined 22 shillings, and then 25 out of it; Henry V, 30s.; Henry VII, 40s.; Elizabeth, 62s.; George III, 66 shillings. The term troy is said to be derived from a fair of that name.

Thus, according to Say, pure silver was worth in the time of Charles V. four times as much as in the age of Voltaire, which that author not observing, fell into a grievous mistake in estimating the amount settled upon the sons of France by the Emperor. The Abbé Raynal was equally lead astray, in regarding the revenue of Louis XII at 36,000,000, when in fact, in the currency of our day, it would have amounted to 144,000,000 francs.

For more remote periods the difficulties are enhanced. Thus, whilst La Harpe and Levesque value the pearl presented by Cæsar to Servilius, 6,000,000 *sesterii*, at 1,200,000 francs, later authorities fix upon 6,072,000 francs as much nearer the truth.

Cæsar laid violent hands upon the Roman treasury, and extracted four thousand pounds of gold and eighty thousand pounds of silver, estimated by Vertot at three million francs in value, and by others at thirty-three millions.

Caligula squandered luxuriously twenty-seven hundred million *sesterii* in a single year, which La Harpe considered as five hundred and forty millions, and Say three thousand millions of *livres*.*

V.—We come now to *American Coins and Coinage*. Prior to the Revolution, small pieces of silver and copper, for change, were issued by some of the States, even as we now see the gold dollar of North Carolina. Massachusetts, in 1652, established a mint for the coinage of shillings, six pences, etc. Maryland, Virginia, and Carolina, afterwards issued pieces of copper. Some of these coins may still be found in cabinets. But as soon as the Americans had won their freedom, the want of a uniform and national currency began to be felt, and Congress called upon the Secretary of the Treasury, Robert Morris, to prepare a report of the foreign coins circulating in the country. The report was drawn up by the assistant financier Gouverneur Morris, who at the same time presented a system of American coinage. Mr. Morris remarks :

The various coins which have circulated in America, have undergone different changes in value, so that there is hardly any which can be considered as a general standard, unless it be Spanish dollars. These pass in Georgia, at 5s.; in North Carolina and New York, at 8s.; in Virginia and the four Eastern States, 6s.; in South Carolina, at 32s. 5d.; in all the other states, at 7s. 6d. The money unit of a new coin, to agree without a fraction, with all these different values of a dollar, excepting the last, will be the fourteen hundred and fortieth part of a dollar. Of these units, twenty-four will be a penny of Georgia, fifteen a penny of North Carolina or New

* The reader will pursue this point to advantage, by referring to the tables of Arthbuthnot, in his *Ancient Coins, Weights, etc.*, to the article *Money*, supplemental to the *Encyclopedie Britannica*, by McCulloch; and to the paper by Mr. Hume, among his *Philosophical and Political Essays*.

York, twenty for Virginia and the Eastern States, forty-eight will be thirteen pence of South Carolina, and sixteen one penny of the other States.*

The following schedule of coins was then proposed:

1 crown or 10 dollars,	equal to 10,000
1 dollar or 10 bills,	" 1,000
1 bill or 10 pence,	" 100
1 penny or 10 quarters,	" 10
1 quarter,	" 1

The value of the quarter to be of the value of one grain pure silver, or $\frac{1}{144}$ of a Spanish dollar. The larger piece only to be of gold, and to receive the unpopular designation "crown," from the device upon it, of an Indian with a bow and arrows, and with his foot upon a royal crown. The inscription to be *manus inimicus tyrannis*.*

Gouverneur Morris' scheme was laid over until 1784, when Thomas Jefferson was appointed by Congress, on a committee to consider the question of currency. This great statesman soon prepared a profound and elaborate paper, in which he rejected Mr. Morris' unit of measure as too small for convenience, but adopted his system of decimal notation, with the dollar as a basis, and elaborated a system of his own, which met with the approbation of Congress. That of Mr. Morris was afterwards materially modified by its ingenious author, but remained still too complicated and artificial, though in some respects with merits above its more successful rival.

Mr. Jefferson we will allow, however, to defend his own system. He says :

Let us examine each of the four coins proposed :†

1. The golden piece will be 1-5 more than a half joe, and 1-15 more than a double guinea. It will be readily estimated then by reference to either of them, but more readily and accurately as equal to ten dollars.

2. The unit or dollar is a known coin, and the most familiar of all to the minds of the people. It is already adopted from South to North, has identified our currency, and happily presents itself as a unit already introduced. I know of no unit which can be proposed in competition with the dollar, but the pound. But what is the pound? (It varies greatly in different States.) To which State shall we give that pre-eminence of which all are so jealous? Or shall we hang the pound sterling about all their necks as a common badge?

3. The tenth will be precisely the Spanish bit or half pistareen. This is perfectly familiar to us all.

4. The hundredth or copper, will differ little from the copper now in use among the States.

The Constitution of the United States, adopted not long after, provides—

* Life of Gouverneur Morris, by Jared Sparks, vol. 7, p. 275.

† Jefferson's Works, p. 135, 136.

1. Congress shall have power to coin money, regulate the value thereof, and of foreign coins.

2. No State shall coin money or make anything but gold and silver a legal tender.
Art. I, §. 10.

The act of Congress, 1792, established the Mint at Philadelphia. The same act fixed the standard of American coins. Thus, the silver pieces to be 1485 parts fine to 179 copper alloy, or 892.4 thousandths. The dollar to weigh 416 grains. The standard of gold pieces 11 parts fine to 1 part alloy of silver and copper, or 916 $\frac{2}{3}$ thousandths. Weight of eagle 270 grains. The President's proclamation, of 1796, fixed the weight of the copper cent 168 grains.

In 1834, Congress found it necessary to change the standard of gold, and provided that the eagle contain 232 grains pure, or 258 grains standard gold, being 26 grains alloy, or 899.225 thousandths. This was raising the value of gold 6.681 thousandths; the old valuation, as 1 to 15 of silver being found incorrect. The ratio adopted by the act of 1837, is 1 to 15.9884, or 900 thousandths fineness, virtually adding $\frac{1}{2}$ grain fine gold to the weight of the eagle. Under the present American system, it is believed that gold is over valued from $\frac{1}{4}$ to $1\frac{1}{2}$ per cent. This has been the cause of large exportation of gold to the United States, and could only have been intended to substitute that currency for silver. This will be seen in the increased amounts of gold over silver coined lately at our Mint.

With this innovation, it of course became necessary to change the current value of all foreign coins, and the act of 1834 did this also; thus the sovereign of \$4 57 was raised to \$4 87, and others proportionately. The act declared generally, that the gold coins of Britain, Portugal, and Brazil, not under 22 carats fine should have the value of 94 $\frac{1}{16}$ cts. per dwt.; those of France $\frac{9}{16}$ fine, 93 $\frac{1}{2}$ cts. per dwt.; of Spain, Mexico and Colombia, 89 $\frac{9}{16}$ cts. per dwt. Upon this basis, H. Vethake, Esq. computes a table.

COINS OF BRITAIN, PORTUGAL AND BRAZIL.

22 Carats.

Value in United States Currency.*		
BRITAIN—Guinea,	- -	\$5 11 0
Sovereign,	-	4 86 9
PORTUGAL—Dobraon, (large)	32 70 6	
Moidore,	-	6 55 7
Milree, 1755,	-	78 0
BRAZIL—Dobraon,	- -	32 70 6
Dobra,	- -	17 30 1
Moidore,	- -	6 55 7

GOLD OF FRANCE.

9-10

Double Louis,	- - -	\$9 15 4
Double Napoleon,	-	7 71 8
New Louis,	- - -	3 85 9

GOLD OF SPAIN.

Doubloon,	- - -	15 59 0
Quarter Pistole, 1772,	-	1 01 1

The silver dollar of Mexico, Peru, Chili and Central America, of the weight 415 grains, are made current by the act of 1834; and the

* A minute difference in mills would result were the values estimated by the quantum of pure gold in the new eagle, of 232 grains.

five franc piece of France valued at 93 cents, when of the fineness, 10 oz. 16 dwt. in lb. troy.

By the act of Congress, May 22d, 1846, it was declared that foreign coins should be estimated at the Custom House at the following values to wit :

Dollar of Sweden and Norway, 1.06 c.; dollar of Denmark, 1.05 c.; thaler of Prussia and North German States, 69 c.; florins South German States, 40; florin Austrian Empire, &c., 48½; lira Venetian Kingdom and of Tuscany, 16 c.; franc of France, and Belgium, and lira of Sardinia, 18.6; ducat of Naples, 80; ounce of Sicily, 2.40; pound British Provinces, Novo Scotia, New Brunswick, New Foundland, and Canada, 4.00.

Bullion may be assayed at the Mint for a small per centage or coined, the only charge in the last case being for refining and toughening when necessary, for alloys and for the separation of gold and silver when combined. In this our system differs from that of England, where all the gold coinage is done at the expense of government, an erroneous principle; since it happens that foreigners are frequently receiving a premium at the expense of British subjects.*

The act of 1835 established the Branch Mints, which went into operation in 1838. They are located at Charlotte, N. C.; Dahlonega, Geo., and New Orleans; the last only being admitted to coin silver as well as gold. By a law of the last session of Congress, another Branch Mint is to be established in Charleston, S. C., and the Mint and Branches are now incorporated as parts of a new American *Sub Treasury System*.

The subject has occupied much more of our attention and space than was at all contemplated, and we are forced, however unwillingly, for the present, to forego the gratification of travelling over that other most extensive and equally interesting field of *Weights and Measures*. We shall take any early occasion to do this. The present article has also suggested to us two others of kindred nature, which will engage a large portion of our attention—the *Comparison of Coins among all nations*, and the *Banking System*. Upon the United States Mint the able pen of Professor Riddell, of this city, will, at an early day, provide us a paper.

* But Britain demands a heavy seignorage or charge for coining silver, and realizes a profit of 100 per cent. on copper. Some writers think that the Mint should be a source of revenue to the government, though this could never be large. The expense of coinage in Europe is thus estimated:

In France,	- - -	on gold, 0.29 per cent.; on silver, 1.50 per cent.
In England,	- - -	" 0.70 " " 2.22 "
In Denmark,	- - -	" " " 2. " "
In Russia,	- - -	" 0.85 " " 2.95 "
In the United States,	{ average now about,	{ " 0.75 " " 0.75 "

ART. II.—COFFEE AND THE COFFEE TRADE.*

The march of civilization has introduced among us many luxuries with which the ancients were unacquainted. In the progressive attainments and higher destinies of man in his social capacity, the energies are taxed to produce, superadded to the necessaries, the refinements and elegancies of life. The superfluity of to-day produces the positive want of to-morrow, and thus is man hourly accumulating upon himself, habits of a fixed and permanent character. In a primitive state, the calls of nature are readily answered; no wearied exertion, no patient sufferance is demanded, to place within his eager grasp the active means of his existence.

COFFEE (Arab. *Bun*; Ger. *Kaffee*, *Kaffebohnen*; Fr., It. and Port. *Caffé*; Sp. *Café*; Rus. *Kofé*; Turk. *Chanbe*.) is a shrub indigenous to Arabia, or that part of it called *Yemen*. Prior to the sixteenth century we find no mention made of it, and we are therefore led to infer, that it has only been subsequent to that time made into a decoction and used as a drink. Macpherson, in his annals of commerce, inclines to the opinion that the plant grew wild in Arabia, long before its cultivation as an article of commerce. On this point, all the authorities we have consulted are silent. A German, named Leonhart Rauwolf, is believed to be the first European who took any notice of coffee. His work was published in 1573.

The plant has been very accurately described by Prosper Albinus, in his works *de Plantis Egypti*, and *de Medicina Egyptiorum*, published in 1591 and 1592.

In 1652, a coffee-house was opened in London, for the first time. A Turkish merchant, named Edwards, having brought several bags with him, from the Levant, for his private use, his Greek servant, named Pasqua, was allowed the privilege of making it for public sale.

The use of coffee, says M. de la Roque, was first introduced into France in the period between 1640 and 1660. The first coffee-house was opened in Marseilles, in 1671; and in the following year, one in Paris. Solomon Aga, Turkish Ambassador at Paris, in 1669, is said by Lieber to have introduced it into that city. Others give the credit of its first introduction into Paris to the celebrated traveller Trevenot. We will not attempt to reconcile the discrepancies in these statements,

* Rees' Cyclopaedia; Porter's Progress of the Nation; Wardman's Notes on Cuba; Franklin's Present State of Hayti; Boussingault's Rural Economy; McCulloch's Commercial Dictionary.

or venture an opinion upon the pretensions of either. The fact is not important to us now.

Between 1680 and 1690 the Dutch planted coffee beans they had obtained from Mocha, in the vicinity of Batavia. In 1714, the magistrates of Amsterdam sent to Louis XIV a fine tree, about five feet high, in full foliage, with both green and ripe fruit. This plant is said by Du Tour to have been the parent of all since cultivated in the West India Islands. In 1732, it is known that coffee was cultivated in Jamaica, and an act was passed to encourage its growth in that Island.³ MALTE-BRÜN, in his description of the Colombian Archipelago says, there is but one species of the coffee tree, and it is supposed to be a native of Arabia Felix. The plant was brought to Batavia, from thence to Amsterdam and Paris, and afterwards transplanted to Surinam and Martinique.⁴ It seldom bears fruit before the third season, and sometimes not until the fifth or sixth; it never lasts more than thirty years, and frequently decays long before that time. A single plant may produce from one to four pounds of coffee. We have seen it elsewhere stated, that the plant will produce to the age of forty years, and bears to a considerable extent even in the third year. A difference in soil and climate, doubtless, produces these different results; and this is apparent from the fact of a statement made by Boussingault, that some shrubs yield from 17 to 22 lbs of dry coffee beans, though this, he says, is a very large quantity. We can readily conceive the necessity of this qualification.

To thrive, the coffee plant requires frequent rains up to the time of flowering. The fruit bears a strong resemblance to a small cherry, and is ripe when it becomes of a red color, and the pulp is soft and very sweet. As the berries never ripen simultaneously, the harvest takes place at different times; and each requiring at least three visits, made at intervals of from five to six days. A negro will gather from ten to twelve gallons of coffee in the course of a day.

Coffee contains the same active principle as tea, caffeine, but in less proportion; the researches of chemists, have shown the presence of a particular acid, called coffeeic acid, also a fatty matter, a volatile oil, a coloring principle, albumen, tannin, and alkaline and earthy salts.

LIEBER, in his Cyclopaedia Americana, says, he recollects having read in an old sermon, the following passage. We copy it for its quaintness: "They cannot wait till the smoke of the infernal regions surrounds them, but encompass themselves with smoke of their own accord, and drink a poison which God made black, that it might bear the Devil's color."

Beaujour, in his excellent work on Greece, tells of a *theriacophage* (an opium eater) who drank more than sixty cups of coffee in a day, and smoked as many pipes.

Mocha, with a population of, probably, not over 7,000, and situated upon the margin of a dry sandy plain, probably produces about 12,000 tons coffee,* universally admitted of the finest quality in the world. Much of it is sent to India, and occasionally large amounts find their way direct to Europe. It is produced in a very dry climate, the best being raised upon mountainous slopes and sandy soils. The reasons assigned for the superior excellence of the Arabian coffee are various. The most important, however, are the difference in soil and climate. That part of Arabia where the coffee tree is cultivated is rocky, dry and hot; and it is found by planters, that coffee grown in a light soil, and on dry and elevated slopes, such as are chosen for it in Arabia, has a smaller berry, with a delicate flavor, while that produced in a low, fertile and moist soil has a larger berry, but is comparatively flat and insipid. Rich soils, however, produce the largest quantity. The custom of pollarding the trees, which exists in the French West India Islands has a pernicious effect. The branches are obliged, by this operation, to take more of a lateral direction, in consequence of which, they grow thicker, and afford less access to the rays of the sun. Hence, the berries seldom become perfectly ripe. In Arabia, the berries are not gathered till they readily fall off on shaking the tree, when they are received on linen sheets, spread for the purpose, and are then dried in the shade on mats, fitted to imbibe their moisture. The rains in the West Indies cause the berries to fall off; hence this plan cannot be pursued there.

It is said that sugar placed near coffee will, in a short time, so impregnate the berries as to injure their flavor; and Dr. Moseley mentions, that a few bags of pepper on board a ship from India, spoiled a whole cargo of coffee.

MARCO POLO describes the territory of Java as very rich, yielding pepper, nutmegs, galanga, cubeb, cloves, and all the richest of spices. Of coffee he says nothing specially, but at the period when he returned from his travels in the East, Europe was in a state of profound ignorance, and the regions which he traversed almost unknown; we are at no loss to account for his silence with regard to an article that forms, at the present time, so large a portion of its commerce.

JAVA promises, under a liberal and enlightened system of government, to become by far the most important of all the Eastern colonial possessions of any European power. The increase in the production of coffee in the Island since 1830, sustains us fully in this position. The exports in 1832 amounted to 314,173 piculs or 42,727,528 lbs., computing the

* We give this estimate upon the authority of Mr. McCulloch.

picul at 136 lbs. avoirdupois. We give below the exports from Java, from 1836 to 1845 in piculs and pounds.

<i>Years.</i>	<i>Piculs.</i>	<i>Pounds.</i>	<i>Years.</i>	<i>Piculs.</i>	<i>Pounds.</i>
1836	498,077	67,738,472	1841	961,466	130,739,376
1837	684,947	93,152,792	1842	1,013,854	137,884,144
1838	59,000	8,024,000	1843	1,018,102	138,461,872
1839	757,476	103,016,736	1844	1,239,935	168,631,160
1840	132,124	153,968,864	1845	1,005,750	136,782,000

Previous to the negro insurrection in St. Domingo, the exports amounted to near 35,000 tons, and was yearly increasing. It has been supposed that but for the devastation which was created by that melancholy occurrence, they would have reached to 42,000 tons in that year. In 1843, as will be shown hereafter, the whole *production* of the island barely exceeded 19,000 tons. It will scarcely be affirmed, that this devoted country is in as prosperous or healthy condition as she certainly was prior to the event we have noticed, nor will we attempt to define the causes which have contributed so powerfully to reduce her from a state of affluence to one of commercial poverty and degradation. The exports of coffee from Hayti, were

In 1791,	-	-	-	-	68,151,180 pounds.
In 1822,	-	-	-	-	35,117,834 "
<hr/>					Decrease, - - - 33,033,346 pounds.

The decrease in the exports of sugar, for the same time, are almost beyond conception,

In 1791, she exported	-	-	-	163,405,220 pounds.
In 1822, " - - -	-	-	-	653,541 "
<hr/>				
Decrease in pounds, 162,751,679 pounds.				

Such then, as we clearly see, is the impoverishment to which this country is reduced, and to account for it we must look a little beyond the measures of her lawgivers, though to President Boyer is imputed many of the calamities with which the Island has been visited.

The labor required for the cultivation of coffee, is exceedingly light; the same rule does not apply to sugar: hence the marked and important results to which we are brought by the estimates we have given of the production of these two articles in this Island. The legitimate deductions from the acknowledged fact that the inhabitants will not labor beyond that point which their necessities and the absolute calls of nature require, are as clearly exhibited in these figures as though we had the evidence of our visual organs in their confirmation. It has been said that what is called a coffee plantation in Hayti, is nothing more than a

large tract of land, throughout which the coffee tree grows spontaneously. Indeed, the miserable specimens sent to our own markets, afford a striking illustration of the truth of this remark. The laws which regulate the industry of the country are urged as another cause of its impoverishment, but to this point we have given but little of our attention, satisfied with the results to which our investigations thus far have led. Her *rural code* is said to be a modification only of the French *CODE NOIR*.

In Jamaica, results little less satisfactory are forced upon us by a review of her commerce in the article to which our attention has been directed. In 1772 the product was 841.558 lbs., in 1797 it had increased to 7.931.621 lbs., and in 1802 a still further increase was manifest to an extent, making the production of that year amount to 17.961.923 lbs. The largest crop was in 1814, which amounted to 34.045.585 lbs. In 1824, it will be remembered Mr. Canning introduced into the British House of Commons, his celebrated resolutions for the emancipation of the slaves in the British West Indies. The effect of that measure upon the agricultural productions and growing commerce of the Islands, is a matter, though properly within the sphere of this article, one upon which we are not inclined to animadvert. Confining ourselves then to plain statements, we find that in 1832 Jamaica *exported* to England 19.811.000 lbs. of coffee, and proceeding still further, discover the *production* of 1836 to amount to only 13.446.053 lbs. In 1843 the whole production of the British West India Islands amounted to no more than 10.000.000 pounds. The decrease in the production and exports of Trinidad, are in much the same ratio with those of Jamaica.

The coffee tree in Cuba, if left to nature, attains a very great height in the nurseries, and gives off horizontal branches knotted at every joint, which, like the trunk, are covered with a grey bark. The blossom looks like the white jasmine, and forms thick circular clusters around the branches. The berries at first are green, as they ripen they become white, then yellow, and finally red, resembling the cherry in size and appearance. Ninety cherries have been counted on a single tree two feet long, each containing two berries, applied with their flat sides together, having a soft, sweet mucilaginous pulp between them and the pellicle. From August to December the cherries ripen and are gathered singly by the hand, and as three or four different crops are ripening at the same time on each tree, as many separate pickings are required.

The very quality, says Dr. WURDEMANN, rejected by us and called *triage*, consists chiefly of the round small grains produced by old trees, and possesses the finest flavor. It is kept from year to year, and when

old, is pronounced equal to the best Mocha coffee. By the end of January, the whole crop is generally sent to market.

The coffee tree has enemies to contend against in the worm and moths, but the most destructive of all is a small fly that deposits its eggs on the leaf, the caterpillar produced from which destroys all but the vines, leaving a lace work foliage.

We subjoin a statement of the exports of coffee from Havana, from 1833 to 1845 :

<i>Years.</i>	<i>Pounds.</i>	<i>Years.</i>	<i>Pounds.</i>	<i>Years.</i>	<i>Pounds.</i>
1833	46,428.125	1837	35,244.725	1841	18,564.250
1834	22,890.025	1838	21,612.250	1842	27,036.700
1835	19,832.550	1839	29,374.900	1843	19,326.075
1836	20,998.900	1840	31,820.550	1844	14,481.200

We will not attempt to analize this table, as we will probably have occasion to draw some deductions from the exports of Cuba, in coming to speak of the trade of our city. A glance will suffice to show the material reduction in the exports of 1844 compared with those of 1833, and to exhibit this fact is sufficient for our purpose here. The exports of 1845, it is assumed, have amounted to 13,983.050 lbs., an amount less by 498.150 pounds, than the previous year. In 1831 Mexico prohibited the importation of coffee, and we are not advised that she has ever removed the restriction. Indeed, the Mexican tariff of 1845, published in the *Diario*, places this article in the prohibited list. General WADDY THOMPSON affirms that she cultivates the article in sufficient quantities to serve the purposes of a very large consumption.

Of the imports into Amsterdam, we were struck with the fact which was presented to us, that about one-third only were from the West Indies. Considerable reductions are made from the weight equivalent to about five pounds per bag, independently of an allowance which is sanctioned by custom. While heavy importations are made into Holland, she exports to other countries a quantity of old Java commonly called "Government coffee." The extent of the consumption of coffee in Smyrna, may be estimated by the fact of 400,000 cups being daily drank, worth 20,000 piastres, or in our currency, about \$1481 48. The imports are from Mocha, St. Domingo, Havana, and Brazil. The annual consumption is estimated at 3,000,000 Okes or 8,496,094 pounds.

Coffee is imported into Constantinople from Brazil and the West Indies, most of it in American bottoms; the principal importations are from Alexandria, however, as might be very naturally supposed.

The imports of coffee into Trieste have been very large, and this is accounted for on the ground that large quantities are subsequently transhipped by coasting vessels to other places. The duty per hundred pounds is 21 florins, equal to about 49 cents. The imports from the

United States in 1830 was 5,159,700 pounds, but subsequent years show a marked decrease down to the present, when we find her imports from this country amounting to no more than 2,019,540 pounds, valued at about \$131,000.

The imports into VENICE are principally from Trieste, which indeed furnishes nearly the whole of her entire consumption. We might pause here, to pay a passing tribute to a city rendered classic, if from no other cause, from the muse of Shakspeare, of Milton, and of Byron. The recollections of her former opulence and splendour, but too painfully contrast themselves in our mind, with her present degradation. Where are now the merchant princes who swayed the sceptre of commerce over half the civilized world, and like the good Antonio, though his means were "in supposition" "hath an argosy bound to Tripolis, another to the Indies, a third at Mexico, and a fourth for England?" Where is the Jew, with balances nicely adjusted, to claim with scrupulous exactness the clear fulfilment of the very letter of his bond? Where the Rialto upon which the living mass congregated for purposes of barter and of trade? A spirit of desolation seems to have swept away as with whirlwind force, every vestige of her former greatness, and the modern traveller, his bosom swelling with emotions, which the crowd of long cherished associations connected with her *past* history, excites within him, stands like Byron:

"——— on the bridge of sighs,
A palace and a prison on each hand;

to mourn perchance over her "dead doges," her crumbling ruins, and deserted commerce. What a contrast with that state, when :

"——— her daughters had their dowers,
From spoils of nations, and the exhaustless East
Pour'd in her lap all gems of sparkling showers.
In purple was she robed, and of the feast
Monarch's partook, and deem'd their dignity increased."

From the October number of Hunt's Merchant's Magazine, we extract the following :

"It was stated recently in the French Chamber of Deputies, that the Belgians, a population of four and a half millions, consume twenty-six millions pounds of coffee; while the thirty-five millions of French do not consume more than thirty millions of pounds. The French duty on one hundred pounds is more than the common original cost—the Belgian, not a tenth part. Were the French consumption proportional to the population, the gain would be material for the venders of French sugar, colonial and indigenous."

The very heavy duty on coffee in Naples,* and on other articles in

* The new tariff of the Papal States, authorized by his holiness, the Pope, on the 2nd July, 1846, reduces the present duty on coffee about 13 per cent., the modification to take effect from the 7th of the same month. We doubt whether this reduc-

proportion, are ostensibly for the purpose of encouraging domestic manufactures and for revenue, though all writers agree that it has failed in its object. Our only surprise is, that there should be any legitimate traffic among this misguided people. With a coast stretching some thousand miles in extent, the facilities thus afforded to the smuggler are of a character to enable him to defy the strictest vigilance of the Government.

The imports into Barcelona are very inconsiderable. The duty operates powerfully in checking the consumption of coffee, and though this article seems to be so far favored as not to be placed among those prohibited, the import duty is 8 reals per quintal, or at a rough calculation, about $2\frac{1}{2}$ cents a pound if imported in Spanish bottoms, or nearly three times that duty if under a foreign flag. In 1831 the imports did not reach 400 bags.

Who can doubt that Spain, without the pressure of duties under which she has so long groaned, would have had a commerce perhaps the most extensive of any European power. Her wheat, brandies, wines and fruits, her wool and iron of the best quality, her lead and quicksilver mines could scarcely have failed to raise her to a proud position among the commercial nations of the world. But where imports are prohibited, how can you export? All trade is based upon a principle of reciprocity. What does our trade with Cadiz amount to; the principal commercial seaport of Spain? To nothing, absolutely nothing. Wines and salt make up the sum of our principal commodities. Three fourths of her foreign trade may be said to be carried on in defiance of law.

But let us leave a country which can scarcely be said to have emerged from the superstition and ignorance of the dark ages, so far as the laws which regulate and control the commerce of nations are concerned, and devote our attention for a few moments to England. England, the proud mistress of the seas, the nursery of art, the patron of genius, and what should be her proudest boast, mother of this infant Hercules, whom she scarcely thought was destined within a brief space to rival her in commerce, arts, and manufactures. The causes which would induce us to extenuate the miserable policy of Spain and of Italy in bringing destruction upon their commerce and poverty to the homes of their people, she would regard as offensive to her pride and insulting to her dignity. But let us see how stands the case, and wherein consists the difference between them.

tion is of a character to improve materially the condition of the country; it is important, however, as an evidence of the remarkable commercial change through which it is evident all the States of Europe are passing.

We subjoin a statement showing the quantity of coffee consumed in Great Britain in each of the years of the census, comparing the consumption with the growth of the population, and exhibiting the influence of high and low duties :

Years	Number of pounds consumed.	Rate of duty per lb., on British plantation coffee.	Population of Great Britain.	Average Con- sumption.	Sum con- tributed per head to the revenue.
	lbs.	s d.		lbs. oz.	d.
1801	750,861	1 6	10,942,646	0 1-09	14
1811	6,390,122	0 7	12,596,803	0 8-12	4
1821	7,327,283	1 0	14,391,631	0 8-01	6
1831	21,842,264	0 6	16,262,301	1 5-49	8
1841	27,298,322	0 6	18,532,335	1 7-55	10 $\frac{1}{2}$

Thus it appears that with a duty of 1s. 6d., the use of coffee was confined to the rich exclusively, and the amount consumed in the kingdom scarcely exceeded an ounce for each inhabitant. Prior to this, there was a duty of 2s. During the next ten years a material reduction was made in the duty, and the consumption rose nearly 750 per cent. It is curious to trace out the results of this table, for in going on to the ten years succeeding 1821, we find an addition to the duty of 5d. having the effect materially to check the progressive increase of consumption, and if we take the increased population into account, showing no increase at all. A duty of but 6d. was placed upon the article in 1825, and what was the result? An increase in the consumption of nearly 200 per cent., and the revenue considerably augmented. Up to this time there was a discriminating duty in favor of the West against the produce of the East India possessions of 3d., but the consumption having gained so far upon the imports, it was found advisable for the dealer to pay the additional duty upon the East India coffee. So clearly evident was it from this and other facts that the supply from the Western colonies was inadequate to the demand, a modification of the tariff took place, by which the production of the East was admitted at the same rate of duty. Hence we observe a still further increase in the consumption, and if it does not continue, we can only attribute it to the want of an adequate supply.*

In an article of such primary commercial importance, as this has been clearly evidenced to be, it is somewhat surprising, to say the least, that a duty of nearly double the original cost, should be placed upon the article.

* The British Tariff of 1842, imposes a duty of 6d. per lb. upon foreign coffees, and 4d. upon colonial productions—to which is to be added 5 per cent. upon the nett amount of the duty levied.

The following estimate, taken from Porter's *Progress of the Nation*, exhibits an amount of capital thrown away, as effectually as if it had been cast into the sea, in order to take advantage of the privilege of bringing into consumption, at a duty of 9 pence per pound, coffee that was otherwise liable to pay a duty of 1s. 3d. per pound,

Freight, insurance, landing and shipping charges, or

	£ s. d.	£
7,080 tons, shipped from Europe, at 10 6 8 per ton,	73,160	
5,060 " " W. Indies, at 4 17 0 "	24,540	
5,680 " " Brazil, at 4 10 0 "	25,560	
2,030 " " Java, at 2 0 0 "	4,060	
		<hr/> £127,320

To this amount might be added interest, loss of weight and deterioration of quality, including risk of sea damage, but the sum is already sufficiently great, to convey a just appreciation of the iniquity of a system of high duty, and of discriminations of this character in particular.

Let us turn for a moment to RUSSIA. The duty she has imposed on coffee, puts to flight the wildest imaginings we could have formed of the folly of restrictions upon an article entering so universally into the consumption of the world. The barbarous and almost uncivilized character of her population, eminently disqualify her for any high attainment in manufactures or the arts. To the natural production of her soil must she look for that wealth which is to constitute her future greatness, and hence the palpable injustice of a duty amounting almost to 55½ cents upon every pound of coffee which enters her dominions. The present year has, however, witnessed a great improvement in the Russian commercial system, in the adoption of a new tariff, based upon principles of revenue. By this, articles hitherto saddled with prohibitory duties are admitted into the empire, those with merely high duties are lowered, and many commodities previously taxed, admitted free.

The Austrian policy differs not materially from that of Russia. While Trieste and Venice are comparatively free ports, and all importations for the consumption of their inhabitants are exempt from the exactions of a high rate of duty; no sooner is it attempted to introduce them into the heart of the country than the full force of her policy is felt in its operation. A duty of about 9½ cents is then placed upon the article, and this too, with a view of protecting *domestic manufactures*.

We propose now to direct attention to our own country, and in doing so, we feel no small degree of satisfaction in boldly contrasting the policy by which she has been governed, with those which have for so long a period of years controlled and directed the commerce of the

European States. A fertile field is here presented to our view, rich in the promise of a ripe and abundant harvest.

With the view of exhibiting our trade in this article, from an early period, we annex a table, showing the importations into the United States, from foreign nations and their dependencies, from 1st October, 1806, to 30th September, 1807.

Countries.	Pounds.	Countries.	Pounds.
Russia, - - -	10	Spain, - - -	9,795,720
Sweden, - - -	1,705,670	Portugal, - - -	18,303
Denmark, - - -	10,946,411	Mocha, Aden and other ports on the Red Sea, &	1,709,533
Holland, - - -	10,217,767	China, - - -	592,072
Great Britain, - -	2,746,871	All other countries, -	110,130
France, - - -	20,932,324		
	46,579,053		42,225,758

We offer no remark upon this statement, further than to call attention to the sources whence our imports were derived at that period, and the entire revolution which has since been affected in the trade, so far as production is concerned. Nor can it escape special observation, that those countries to which we were then so largely indebted for our supplies, are at this time, in a measure, tributary to us for their own. Holland, France and Russia are striking examples of this fact, as will be made clearly apparent on a review of the exports from the United States for 1845.

Our imports from China in 1835, amounted to 191,534 lbs., valued at \$24,649. In 1842, the assumed value was but \$1,968; and in 1845, as will appear by the table to which we have already made reference, were but 290 lbs. valued at fifteen dollars. The duty on coffee, in Calcutta, in 1835, was $7\frac{1}{2}$ per cent. if imported on a British, or 15 per cent. if on a foreign bottom. It is asserted, on the authority of Mr. McCulloch, that in 1834 Great Britain furnished about sixty per cent. of the imports into China; the United States only about $2\frac{1}{2}$ per cent. This may have been true, and doubtless was so at that time, but we are inclined seriously to doubt the existence of such a disparity now. Our exports to China, for three years previous to 1837, were about the same, never exceeding \$360,000 till 36-7, when they reached \$655,581. But mark the difference in 1844-5. Of manufactured cotton goods alone in that year, we exported to China what was equal in value to \$1,496,470, to which, if we add cotton wool, ginseng, lead, and the indefinite number of other articles, which the enterprize and ingenuity of our Northern countrymen have thrown into the ports of the "Celestial Empire," amounting by rough calculation, to about \$1,958,298, we

must see the astonishing increase made in that trade within the last few years. The following is stated to be

THE COFFEE CROP FOR 1843.*

Brazil, (1,170,000 bags)	- - - - -	lbs. 170,000,000
Java and Sumatra, (1,450,000 bags)	- - - - -	140,000,000
Cuba, - - - - -	- - - - -	45,000,000
St. Domingo, - - - - -	- - - - -	38,000,000
Porto Rico, Laguayra, etc., - - - - -	- - - - -	36,000,000
British West Indies, - - - - -	- - - - -	10,000,000
Ceylon, - - - - -	- - - - -	7,000,000
East Indies and Mocha, - - - - -	- - - - -	6,000,000
French Colonies, - - - - -	- - - - -	4,000,000
Dutch West Indies, - - - - -	- - - - -	3,000,000
Total, - - - - -	- - - - -	lbs. 459,000,000

This may be a fair estimate of the crop of 1843, but it strikes us that 1,170,000 bags of Brazil coffee will yield an amount in pounds equal, at least, to 17,000,000 over this calculation. Though with many of our merchants, 160 lbs. is supposed a fair average for a bag of Brazil coffee, there are others who believe 162 lbs. a truer average. Taking the lowest amount then as the basis of our calculation, Brazil must have produced in that year, 187,200,000 pounds instead of 170,000,000, as has been declared. We have alluded to this fact as we may have occasion hereafter to refer to the estimate in the establishment of our positions.

IMPORT, EXPORT, AND CONSUMPTION OF COFFEE IN THE U. STATES.
A Statement of the quantity and value of Coffee exported into, and imported from, the United States, in each year, from 1821 to 1844, with the consumption in the United States.

Years.	IMPORT.		EXPORT.		CONSUMPT'N.	
	Quantity. Pounds.	Value. Dollars.	Quantity. Pounds.	Value. Dollars.	Quantity. Pounds.	
1821	21,273,659	4,489,970	9,387,596	2,087,479	11,886,063	
1822	25,782,390	5,552,649	7,267,119	1,653,607	18,515,271	
1823	37,337,732	7,098,119	20,900,687	4,262,699	16,437,045	
1824	39,224,251	5,437,029	19,427,227	2,923,079	19,797,024	
1825	45,190,630	5,250,828	24,512,568	3,254,936	20,678,063	
1826	43,319,497	4,159,558	11,584,713	1,449,022	31,734,784	
1827	50,051,986	4,464,391	21,697,789	2,324,784	28,354,197	
1828	55,194,697	5,192,338	16,037,964	1,497,097	39,156,733	
1829	51,133,538	4,588,585	18,083,843	1,536,565	33,049,695	
1830	51,488,248	4,227,021	13,124,561	1,046,542	38,363,687	
1831	81,759,386	6,317,666	6,051,629	521,527	75,702,757	
1832	91,722,329	9,099,446	55,251,158	6,583,344	36,471,141	

* Hunt's Merchant's Magazine.

Consumption of Coffee in the United States. 315

Years.	IMPORT.		EXPORT.		CONSUMPT'N.	
	Quantity. Pounds.	Value. Dollars.	Quantity. Pounds.	Value. Dollars.	Quantity. Pounds.	
1833	66,628,900	6,997,051	14,696,152	1,806,583	51,932,748	
1834	80,153,366	8,762,657	35,806,861	4,288,720	49,346,502	
1835	103,199,777	10,715,466	11,446,775	1,333,777	91,753,002	
1836	93,790,507	9,653,053	16,143,207	1,985,176	77,647,300	
1837	88,140,403	8,657,760	12,096,332	1,322,254	76,044,371	
1838	88,139,720	7,640,217	5,267,087	502,207	82,872,633	
1839	106,696,992	9,744,103	6,824,475	734,418	99,872,517	
1840	94,996,095	8,546,222	8,096,334	930,398	86,209,761	
1841	114,984,783	10,444,882	5,784,536	589,609	109,200,247	
1842	112,764,635	8,931,117	5,381,068	483,362	107,383,577	
1843	92,295,660	6,346,787	6,378,994	422,860	85,916,666	
1844	158,332,111	9,594,877	8,620,291	540,579	149,711,820	

The consumption of the United States, as appears from this table, for the ten years previous to 1831, amounted to 257,972,561 pounds, or an average of 25,800,000 pounds per annum. In 1831, the imports were about sixty per cent. over any preceding year, and the exports only about one-half the exports of 1830, one-third of those of 1827, or one-fourth of those of 1825, leaving for consumption, 76,000,000 pounds, an amount more than double the quantity consumed in any previous year. It is not difficult to conceive, that this state of things was produced by some unnatural cause, to which the uniform laws which regulate supply and demand, were made subservient. The excess of the imports of 1831 may be properly attributed to the rage for speculation in this article, in the Northern cities, during the exciting agitation of the tariff question in that year, which resulted contrary to the expectations which had been formed, in the passage of the act, known as the tariff law of 14th July, 1832. It was assumed as the ground work and basis of the operation, that as coffee was an article entering so largely into the consumption of the country, it would be found prudent to enhance, rather than to reduce the duty. Of the result it is unnecessary to speak. The reduction was made; and the prospect which was at one period opened before them of large stores of wealth, proved as delusive as their calculations had been superficial. At this distance of time we experience no difficulty in arriving at the course of reasoning by which the majority of the members of that Congress were induced to cast their votes in favor of a reduction of the duty on coffee. But as no man, or set of men may be censured for acts done with the view of protecting their interests, when not in conflict with the true interests of the country, we pass by the argument, having simply called attention to it, with the view of enabling the reader to deduce his own conclusions.

With so heavy a speculative demand as was thus created, stocks very naturally accumulated and were held over. In proof of this, the *exports* of 1832 amounted to nearly ten times those of the year preceding, and 4,000,000 pounds more than the imports of any year previous to 1831. Thus, were the surplus imports arising out of the speculative demand of that year, driven hence for want of an immediate consumptive demand, and the want of capital necessary to hold it. Not the least important consideration in favor of the very heavy export which was made in this year, was the disposition to avail of the *drawback*; a very important item with those, who had embarked in an enterprize so destructive as we can readily imagine this to have been. These two years, 1831 and 1832, we feel bound, therefore, to consider as exceptions to the general and uniform trade of the country, in view of the obvious local causes by which these two years were influenced and controlled.

The remark of Dr. Adam Smith, with regard to drawbacks, that they "do not occasion the exportation of a greater quantity of goods than would have been exported had no duty been imposed," loses some of its force in making an application of it here. Though the general principle is *not* to be controverted, it will scarcely be denied, that the *drawback*, in this case, occasioned "the exportation" of large quantities, which there was sufficient capital in the country to have carried into the consumption of the succeeding year. But this we conceive to be a remarkable exception, particularly in view of the fact, that the money price in both years were about one and the same thing.

The tariff of the 2d March, 1833, commonly known as the "Compromise Bill," admitted coffee, free of all duty. The consumption of the United States, for 1833 and 1834, averaged 50,000,000 pounds, or double that of any year in the previous ten years. To what cause then are we to attribute the increased consumption of these two years? Coffee was *free!* It surely will not be argued, that the period was not far enough removed to admit of an effect so momentous. We all know that the largest exports from Rio de Janeiro are in the months of September, October and November; and that one month varies but little from the exports of another.

From this date commences the direct, rapid progress of that trade, which at this time forms so large a feature in our commerce. The decline in the price of the article we may attribute to what cause we please; the fact is evident. This decline, induced an increased consumption, which in its turn encouraged the production, as will appear if we examine the exports from Brazil; and reflect for a moment, that more than half she produces is imported into the United States, and here consumed. In pursuing this train, we discover that the increase

in the production caused a further reduction of prices, till we find coffee at this time, ranging in price from 6 to 8 cents, and the *consumption* of the United States for the ten years previous to 1845, amounting on an average, in round numbers, to about 96,600,000 pounds yearly. It is also worthy of remark, that if we take the last five years, without regard to the five which preceded them, we will find the average consumption absolutely amounting to over 100,000,000 pounds yearly, or four times the consumption previously to 1831.

In a debate in the House of Representatives of the United States, upon the passage of the tariff bill, of 1832, a distinguished member of that body, from South Carolina,* held the following language: "In this estimate" (Coffee was proposed to be admitted under a duty of half a cent per pound) "I regard Tea and Coffee as being *substantially free*, as the duties retained are scarcely worth the trouble and expense of collecting them." This remark *may* have been true at that time, but it can scarcely be doubted, that a low duty equal to that proposed to be levied under the tariff of 1832, would now add to the revenue, an amount probably equal to \$700,000.* We may concede the point, that even such a duty would have its effect upon the consumption of the country, without compromising the position we have assumed; for who can doubt that there are other articles now heavily burthened, that would be in a measure relieved.

For the following tables of the imports and exports of the United States, for 1844-45, we are indebted to the report of the Hon. R. J. Walker, Secretary of the Treasury.

IMPORTS OF COFFEE INTO THE UNITED STATES.

For the year commencing 1st July, 1844, and ending 30th June, 1845.

	<i>Pounds.</i>	<i>Value.</i>		<i>Pounds.</i>	<i>Value.</i>
Danish West Indies,	93,320	7,141	Hayti,	13,090,359	708,855
Holland,	358,723	41,658	Mexico,	850	68
Dutch East Indies,	3,925,716	259,694	New Grenada,	193,811	13,236
" West Indies,	1,270	87	Venezuela,	9,450,588	615,115
British Guiana.	200	16	Brazil,	78,553,616	4,401,269
" West Indies,	4,815	312	Argentine Republic	11,967	611
French West Indies,	196,930	25,357	Peru,	582	50
" Guiana,	1,658	110	China,	290	15
Manilla & Phillipine I.	436,705	34,017	Asia (generally)	1,040	107
Cuba,	1,157,794	79,358	Africa (generally)	208,497	20,036
Other Sp. W. Indies,	171,410	14,101	S. Seas & Pacific,	570	42
Cape de Verds,	200	16			
	<hr/>	<hr/>		<hr/>	<hr/>
	6,348,541	461,861		101,512,170	5,759,404
				6,348,541	461,861
				<hr/>	<hr/>
				107,860,711	6,221,265

To which must be added, 272,458 lbs., imported from places other than its growth and production.

* Hon. George McDuffie.

EXPORTS OF COFFEE FROM THE UNITED STATES,
From the 1st July, 1844, to the 30th June, 1845.

	<i>Pounds.</i>	<i>Value.</i>		<i>Pounds.</i>	<i>Value.</i>
Russia,	149,860	12,204	France on the Atlantic	528,851	29,665
Prussia,	77,891	5,494	French West Indies,	23,366	1,796
Sweden and Norway,	6,292	544	Cuba,	670	80
Denmark,	90,177	5,410	Italy,	916,529	66,004
Hanse Town,	1,493,130	87,364	Sicily,	394,453	23,695
Holland,	1,858,355	111,538	Sardinia,	341,405	22,449
Belgium,	2,183,627	119,617	Trieste, etc.,	2,019,540	131,098
England,	43,450	2,600	Turkey, Levant, etc.,	486,307	27,898
Gibraltar,	277,329	15,388	Hayti,	500	85
British Honduras,	19,705	1,438	Texas,	268,942	18,349
British West Indies,	38,738	2,438	Mexico,	147,309	10,954
British Am. Colonies,	524,968	44,170	Chili,	8,354	550
France on the Medit'n	1,578,745	98,270	Africa, generally,	1,200	110
	8,342,267	506,475	South Seas & Pac.Ocean,	22,279	1,531
				5,159,705	334,264
				8,342,267	506,475
				13,501,972	840,739

An examination of these tables produces some curious results. They are such, however, as will strike the general reader without the addition of any remarks from us. We regard the source whence they are derived as the most reliable.

In one of the leading publications in the United States, giving a "statistical view of the coffee trade," there is a statement of this character—

	1834.	1843.	<i>Increase.</i>
Import coffee from Brazil,	26,571,368	49,515,666	- - - - -
Value,	\$2,819,028	\$3,392,960	\$573,932
Exports U. S. produce to Brazil, 1,586,097	2,409,419	832,321	

and the following argument upon it: "Now, it is sometimes alleged that the import of foreign goods, drains the country of its treasure. Here is the fact, that increased purchase of \$573,932 worth of coffee, which added largely to the enjoyments of the people of the United States, resulted, in increased sales of American produce to the extent of \$823,321, a clear profit of \$300,000 besides the coffee."

This is certainly a marvellous conclusion, and one which unquestionably demanded no little exercise of fancy. That directly opposite results should be deduced from the same premises, is the strongest evidence we can have of the diversity of the human mind. Of that diversity there can be no doubt.

Apart from the relative value of the imports into, and the exports from the United States to Brazil in these two separate years, 1834 and 1843, we find the increase in the value of the imports into the United States from Brazil in the latter year amounting to \$573,932 over the

former, and an increase in the exports of United States produce to Brazil of \$823,321 during the same period. What then are the true facts which result from this state of things? not certainly, that "*a clear profit of \$300,000, besides the coffee,*" has accrued to the United States from the trade, but the very opposite. We export an excess of \$249,389 to Brazil over our imports, clearly proving, if it proves anything, a loss instead of a gain. We have noticed this fact, for the reason that it carries with it an air of plausibility at variance with the truth; being based upon the hypothesis that the greater the excess of our exports over the imports, in just such a degree is our national wealth augmented. This point has been placed in so clear a light by all the writers upon Political Economy, that any attempt to enforce it here is unnecessary.

NEW ORLEANS is destined unquestionably to become the great Coffee Mart of the United States. If we regard her situation and proximate locality to those countries whence our largest imports are derived, or her almost immediate connection with those States, the largest consumers of the article, we cannot well resist this conclusion. Within a few years the direct imports into this city have increased to an almost incredible extent, while the consumption of that portion of country which it supplies has been enlarged proportionally. With a view to a better understanding of the position of this city in its relation to the entire trade of the United States, we subjoin a statement of the

IMPORT OF COFFEE INTO THE U. S. FROM BRAZIL, FROM 1821 to 1844.

Years.	Pounds.	Years.	Pounds.	Years.	Pounds.	Years.	Pounds.
1821	691,536	1827	4,841,943	1833	29,489,224	1839	48,694,294
1822	2,283,280	1828	15,246,299	1834	26,571,368	1840	47,412,756
1823	2,367,778	1829	11,131,936	1835	35,774,876	1841	59,575,722
1824	3,044,587	1830	14,593,232	1836	46,840,219	1842	61,248,942
1825	2,708,775	1831	14,686,986	1837	33,906,246	1843	49,515,666
1826	2,859,075	1832	25,733,532	1838	27,411,986	1844	95,291,484

From this table it evidently appears that more than half the exports of Brazil find their way to our market, and it is fair to infer are here consumed. In the years prior to 1844, inclusive, with an average consumption of nearly 120 millions, the exports of no one year exceeded nine millions pounds.

Twelve years ago, and scarcely more than one cargo of Rio coffee was imported direct into our city. Every thing now indicates that very nearly, if not the whole of this trade, must very soon be ours. Since there is a very limited demand for this grade of coffee in the Northern States, so soon as we import what will be required for the supply of the Western trade, this point will have been attained. The Western States consume this quality almost exclusively, and ours is found by experience

to be the best market. The necessity for Northern import to supply our trade, in view of these facts, cannot much longer exist.

EXPORTS COFFEE FROM RIO JANEIRO.*

		1841.	1842.
To New Orleans,	Bags, 126,865	-	112,798
To New York,	" 125,419	-	106,617
To Baltimore,	" 120,462	-	92,562
To Philadelphia,	" 30,199	-	19,660
To Charleston,	" 3,500	-	8,130
To Boston,	" 24,271	-	23,513
		<hr/>	<hr/>
		420,716	363,280
To Europe,	" 569,500	-	793,690
		<hr/>	<hr/>
Grand total,	1,000,216	-	1,156,970

Thus we see, that in these two years New Orleans imported a larger quantity than either New York or Baltimore, and we may confidently predict for her an import trade that will yearly increase, until she becomes what it is evident she ultimately must be, the great coffee market of the United States.

IMPORTS OF COFFEE INTO NEW ORLEANS,

From all Foreign Ports, from January, 1834, to January, 1845; compiled from the records of the Custom-House at New Orleans.

Years.	BRAZIL.			CUBA.		
	Lbs.	Bags.	Value.	Lbs.	Bags.	Value.
1834	1,722,860	10,768	\$181,920	11,326,002	70,787	\$1,488,678
1835	5,141,751	32,135	641,542	16,470,199	102,933	1,827,249
1836	6,701,407	41,884	777,575	9,087,341	56,795	1,094,110
1837	3,371,793	21,073	370,977	13,601,687	85,010	1,362,855
1838	2,665,143	16,659	258,243	18,420,610	115,122	1,766,475
1839	12,055,559	75,347	1,101,552	16,143,812	100,898	1,566,178
1840	4,752,806	29,705	441,764	15,921,964	99,512	1,562,646
1841	20,575,177	128,595	1,934,633	10,092,221	63,076	1,017,626
1842	12,255,680	76,598	890,923	6,957,265	43,670	587,634
1843	20,252,460	126,577	1,403,013	9,124,898	57,031	681,155
1844	21,290,561	125,816	1,355,927	6,355,325	39,784	411,454

IMPORTS OF COFFEE INTO NEW ORLEANS, FROM OTHER FOREIGN PORTS.

Years.	Lbs.	Bags.	Value.	Years.	Lbs.	Bags.	Value.
1834	2,191,748	13,698	\$270,598	1840	514,192	3,213	\$ 50,898
1835	1,350,094	8,437	143,544	1841	3,567,757	22,298	338,479
1836	205,522	1,247	28,603	1842	1,912,909	11,956	149,888
1837	103,984	649	12,113	1843	785,583	4,910	56,555
1838	621,991	3,887	57,502	1844	102,000	637	5,758
1839	690,462	4,315	74,094				

* Bahia, among the Northern provinces, is next to Rio, the point whence the largest amount of coffee is shipped.

From these tables* we observe an increase in the imports from Brazil from 1834 to 1837 varying but slightly; in 1838 there was a decline manifest in a very marked degree upon the imports of any previous year, 1834 excepted. In 1839 the imports extended to 75,347 bags, or over four times those of the previous year. In 1840 they fell off again, but in the next year reached a point higher than they had yet attained, amounting to over four times the imports of '40. There was but little variation in the imports of 1843 and 1844, as compared with each other.

In Cuba, the facts are otherwise. The largest imports were in 1835, 1838 and 1839, each year furnishing a supply amounting to over 100,000 bags. The decrease was gradual till we reach 1844, when we find them amounting to no more than 39,784 bags. It is not difficult to account in a measure for the diminished exports of this Island, if we regard the new direction which has been given to capital and labor in the cultivation of sugar. But to what cause soever we may assign it, the fact is too obvious to escape our observation.

The largest imports into this city were in 1841, amounting to near 214,000 bags. For the last two years, taking in the four months included in the tables above, the imports were from

	1845.	1846.
Rio,	167,669	215,031
Cuba, LaGuayra, St. Domingo, &c.	4,094	10,899
Coastwise,	90,000	40,000
Stock on hand 1st. Sept., 1845,	- - -	12,000
	-	-
	277,930	
Deduct stock on hand 1st. {		
Sept., 1846. }	- - -	22,000
	-	-
Bags, -	261,763	255,930

showing a decrease of the last under the previous year of 5833 bags. The accounts received here of the great scarcity of the article and its probably advanced price in the Brazil market, undeniably had their effects upon the trade of our city. The coming crop promises to be a very large one, and will more clearly exhibit the relative positions occupied by New Orleans and New York in the scale of consumers, as many of the causes which have contributed to the depression of our trade during the last year, will have ceased to exist. A comparison of our imports with those of New York, strongly evidences the increased consumption

* From a Circular of H. E. Lawrence, Esq. of this city.

of Rio coffee in the South and West, for though our import coastwise in 1846 only amounted to 40,000 bags, it is an inference we have no doubt the facts will sustain, that much of it was derived from New York and Baltimore, the imports into Boston having been shown to be very inconsiderable.

From the 1st January to 30th September, 1846, the imports of coffee into New York amounted to 270,520 bags, but we must consider that she receives large quantities of Mocha, Java, and the finer grades of coffee, for which we have but a small consumptive demand. Every possible aspect, therefore, in which we can view this question, brings us to the conclusion that while the present imports into New Orleans follow hard upon those of New York, the day is not distant when the former will find herself without a rival in that branch of this trade, to the employment of which, her capital and energies will, for the future, be directed.

It is necessary there should be *one* large Commercial Mart, to which the Southerner may point with pride and exultation, as a standing monument of the wealth, industry and enterprize of this portion of the Union. The Northern coast is studded with cities, rich in the commerce of "a hundred seas," from each of which is yearly poured into their laps all that can please the fancy, contribute to the taste, and add to the enjoyments of life. And where, in all our vast extent of seaboard, can the mind be directed to a single city, great in the elements of a large and extended foreign commerce? To none.

NEW ORLEANS must then, as time develops her giant resources, prove to the South and West what Tyre, and Carthage, and Thebes were to other nations and to other times.

ART. III.—LOUISIANA SUGAR.

J. D. B. De Bow, Esq.,

Dear Sir:—I yield to your request that I should give you the result of my studies on the cultivation and manufacture of sugar in this State. I do it the more cheerfully as I indulge a hope of eliciting communications from others on a subject so vitally interesting to Louisiana, and in this way that any errors into which I may fall from want of experience or defective information will be pointed out and corrected. The subject is vast: volumes have been written upon it, and any survey however general must make my communication extend over more space than you may be able to accord it in your pages. If so, hesitate not to re-

trench any portion that you may deem least likely to afford interest and information.

To a person accustomed to regard the bountiful returns which nature yields to man's labor in the cultivation of other crops, no fact strikes with more surprise than the small comparative return obtained from the cane. The seed seldom yields more than four-fold, hardly ever more than five-fold. The very smallest quantity of cane required for planting one hundred acres is twenty acres of the finest cane, and if, as too frequently is practised, the smallest and poorest cane is saved for planting, it is necessary to put up thirty, forty, and sometimes even fifty acres of cane in order to plant one hundred acres. If in the cultivation of the cane like that of the grains, it were necessary to plant the entire field each year, the large portion of each crop required for seed would form a very serious draw-back, and in some instances might even cause the abandonment of the culture. But fortunately the cane is not an annual plant. Each year fresh shoots spring from the stubble which remains after cutting the crop; the cane-*rattoons*,* as it is termed. In the West Indies where no frosts interfere with this natural re-production, it is said that the cane rattoons sometimes for a period of eighteen or twenty years, although I am inclined to believe this an exaggeration and that it is, in general, necessary to re-plant every ten or twelve years.—In Louisiana as a general rule, the fields are divided as near as may be into three equal parts, one of which is planted each year, so that in a plantation with six hundred acres of cane in cultivation, two hundred acres are plant cane, two hundred acres are rattoons of the first year, and two hundred acres rattoons of the second year. After a field of cane has thus yielded three crops, it is usual to plough up the stubble, and plant afresh, and if we take this as a general rule, and assume as an average that one acre of cane will suffice for planting four acres, it results that the yield of the seed is twelve-fold, or in other words, that one twelfth of each crop must be reserved for planting the next.

In giving an account of the cultivation, I shall commence by describing the process of laying by from each crop the seed for the next. Just before commencing the gathering of the crop, usually about the 1st of October, the planter selects the cane intended for seed. And here if I may be allowed without presumption to say so, a general and fatal error prevails. Most planters have not the courage to sacrifice, as they term it, their best and finest cane for seed. Selecting the fields of the oldest rattoons where the plant is sparsest and smallest, they act in dis-

* This word is said to be a corruption of the French word "rejeton," a shoot or sprout.

rect opposition to those principles of nature which both theory and experience have established for guides in re-production. In both the animal and vegetable systems all agree in the general maxim, that like will produce like. In sowing grain, in producing vegetables, in breeding animals, in the whole reproductive system of nature, it has been universally established as a rule, that a healthy and vigorous offspring can be expected only from parents of similar constitution, and in all cases where this principle has been acted on with perseverance, it has not only succeeded in preventing deterioration, but in superinducing progressive development. I cannot but believe that this practice of always selecting the poorest plants for seed, was one of the main reasons which caused that fine variety of cane called the *Creole*, to degenerate to such an extent that in late years it has been almost entirely banished from our fields. In some instances the planters have pushed the "penny wise, pound foolish" system to such an extent as actually to reserve no cane for plant, but the tops, that is, the green upper joints which are cut from the plant when it is gathered for the mill, and which are not mature enough to afford sugar. I am the more emboldened in making these remarks, as experiment has shewn that in this respect cane is not an anomaly in the vegetable kingdom. A friend who is an experienced and intelligent planter, with sufficient energy of mind to break through the trammels of routine, when in opposition to good sense and sound principle, thoroughly tested this plan of reserving tops for planting in a portion of his field some years ago, and the result was a marked degeneration in the product.

The cane when cut for seed is preserved in *mattrasses*—it is laid in the field in beds of about two feet in height, in layers in such manner that the leaves of each layer over-lap and cover the stalks of the preceding layer, and thus form a protection against the frost: the mattrasses are also laid with their leaves towards the south, so that the north wind cannot lift them in its passage, nor penetrate under them.—In selecting the plant also care should be taken to have in view as much as possible proximity to that part of the field which is to be replanted, and thus to avoid any unnecessary labor in carting the plants long distances when seed time arrives.

Cane may be planted in Louisiana at any time between the first of October and the end of March—but if planted in the fall, care must be taken that the ground be thoroughly drained: otherwise the plant will freeze if the winter be severe, or rot if it be mild. Cane planted in the fall should be planted at least four inches deep to protect it from the frost. Few planters, however, are able to plant before, or during the grinding season. This work is usually commenced immediately after the crop is

taken off. The ground is prepared by the plough, and the cane planted in January, February, and March. Much diversity prevails in the mode of planting; formerly, the cane was planted in rows, from three to five feet apart: but recently a very decided change is perceptible, and the cultivators have become convinced that a width of seven or eight feet between the rows, is as little space as ought ever to be left. When cane is planted in narrow rows, the effects of crowding the plant are not visible in the early part of the season, nor are they as pernicious in very dry seasons: but late in the year the narrow rows are found to be shaded the entire day, the access of sun and air is debarred, the cane does not ripen as well, nor are the stalks as heavy, and in fact all the evils attendant upon crowding too much vegetation in too small a space are clearly apparent. The following mode of planting and cultivating the cane has been pursued for a number of years, by the friend alluded to above, and has been attended with signal success. As soon as the ground has been prepared in January, the cane is planted in rows at a distance of eight feet. Three canes are laid in a row at a distance of four inches from each other: care is taken that the cane be so laid as to place the *eyes* from which the plant is propagated on each side of the cane: * if the cane is thrown into the row without regard to this point many of them will be so placed that one series of the eyes will rest on the bottom, and the opposite series will be on top: the bottom eyes will thus come out later, the cane will be unequal in the rows, and will present to the eye a strikingly different appearance to that which is planted with the precaution of having the eyes on each side, so that nothing may obstruct the first efforts of the tender shoot in its struggles to reach light and air. The canes are laid straight in the row, the crooked stalks being cut when necessary, so as to make a straight line. The plants thus arranged in the rows are covered with finely pulverized earth to the depth of an inch, but care is taken after the plant is up to supply an additional depth of earth, round the roots at a much earlier period than is usually done, because most planters cover their cane deeper in planting. The advantage of this light covering is to hasten the first vegetation, and force an early start, a matter vitally essential in a cultivation, like that of the cane in Louisiana, which must be forced into maturity within a term, several months shorter than that which it naturally requires. My limits forbid following minutely the whole process of cultivation through the year, there being but little difference in the subsequent management from that followed by most planters, except in one particular, which I shall now point out. When the cane is cut in the

* The eyes of the cane grow on the joints, on opposite sides from top to bottom, and are not distributed indiscriminately around the cane.

fall, a large portion of the produce of the soil remains on the field, as is well known in the tops and leaves of the cane, the ripe portion of the stalk being alone conveyed to the mill. This is called the *trash*, and is placed on the stubble to assist in protecting from the frost, that part of the cane which remains under ground, and from which the rattoons shoot up in the ensuing season. As soon in the spring, as danger of frost is no longer apprehended, the trash is raked off the rows of stubble to allow access to the sun and air, and on nearly all plantations this trash which is a useful and fertilising manure is burnt up, instead of being returned to the earth. One cause of the difficulty of making use of this trash as manure, was the narrowness of the space between the rows under the old system of planting, which left so little room as to make the operation of ploughing in the trash difficult and laborious, but where the rows are eight feet apart, the task is easy. Independently of the considerations to which I shall presently advert, and which derive their force from the chemical constitution of the cane, it is difficult for a person who has not witnessed the results to form an adequate idea of the improvement to a soil that is naturally at all stiff, or clayey from the mere mechanical subdivision of its particles attendant on the decay of the large quantity of this trash left annually in the fields. This system was first put into operation on the plantation of which I am part-owner, last year. The trash on the first ploughing of the rattoons, was covered with the earth turned over from the furrow, which is run alongside of the stubble. At the second ploughing, when it became necessary to turn up the entire space between the rows, the difference in the soil was so perceptible as to create strife amongst the negroes for the preference of ploughing these rows, the subdivision of the soil caused by the decay of the trash, rendering the work much lighter and easier than in others, where from causes not worth detailing, we had been compelled to burn the trash. The advantages of this system are such that in lands which have been thus treated for a term of ten years without repose, I have been assured that the soil far from deteriorating is perceptibly improved in each successive year. The space between the rows not only reposes for three years, but is enriched by an annual increment of the best manure, and when it becomes necessary to re-plant, the cane is planted in the spaces thus fertilised, and the former rows then become intervening spaces to receive in their turn the benefits of this rich nutriment for the soil.

I referred in support of the advantage derived from the plan of ploughing in the trash to the chemical constitution of the cane as established by organic analysis. Although I am satisfied from reasons which I will give when I come to treat of the manufacture of sugar, that no ac-

curate or satisfactory analysis of the sugar-cane has yet been made, or at least published, still the errors are not such as to affect the results in relation to cultivation.

Sugar-cane is composed of water, woody fibre, and soluble matter, or sugar. In round numbers it may be stated that the proportions are 72 per cent. of water, 10 per cent. of woody fibre, and 18 per cent. of sugar. But sugar itself is shewn by organic analysis to consist entirely of carbon and water, and woody fibre consists principally of the same elements combined with inorganic bases; so that the oxygen and hydrogen found in the sugar-cane, in the state of water, or as constituent elements of the sugar and woody fibre form about nine-tenths of its weight, and are entirely derived from the atmosphere and from water, thus abstracting nothing from the soil. But this is not all. Vegetable Physiologists agree that a very large proportion of the carbon of plants is derived from the air through the action of the leaves, which decomposes the carbonic acid of the atmosphere, and appropriate to the formation of the tissues of the plant, the carbon contained in this acid. For the purposes of the present illustration, it may, therefore, be assumed that not more than about six per cent. of the growth of the cane is derived from the soil, and hence the fact that this crop can be cultivated on the same soil without exhausting it for a long series of years—but it is certain that a system which is constantly abstracting something from the earth and never making to it any return, must by degrees impair and eventually destroy the fertility of even the alluvial soil of lower Louisiana.—Now by ploughing into the land each year, the tops and leaves stripped from the stalks; not only is the soil improved by the mechanical subdivision of its particles above referred to, but it is kept in good tilth by having restored to it not only at least as much carbon as was abstracted from it,* but a large portion of the inorganic bases. And if to this the bagasse were added as a manure, we should never hear of a soil being worn out on a sugar plantation in Louisiana. I am aware that it was formerly doubted whether any of the carbon of plants was derived from the soil, but later researches have put this point at rest, and have shewn that a large portion of this element is derived by plants from the carbonic acid evolved from vegetable substances during their decay in the soil, either by its inhalation into the roots, in an aeriform state, or by its first entering into solution into the water found in the soil, and being afterwards absorbed in this form by the roots. The experiment of Sir Humphrey Davy on this point appears conclusive, that eminent chemist having shewn that different plants and grasses grow much more luxuri-

* Because the tops and leaves contain fully as much of the carbon derived from the air, as the stalks contained of the carbon derived from the soil.

antly when watered with solutions of sugar, than with common water, the two liquids differing in nothing but the presence of carbon in the former, and its absence in the latter.

Before closing these remarks on the cultivation of the cane, allow me to say something on a point, in comparison with which all others sink into insignificance. In the closing lecture of a series delivered in New Orleans by Professor B. Silliman, jun., on Agricultural Chemistry, he observed that if he were asked by what means the planter of Louisiana could, with certainty, add largely to the product of the soil, he would say, as Demosthenes said of action in its effects on eloquence, drainage, drainage, drainage. The present season has given to nine-tenths of our planters melancholy proof of the truth of this remark, and although the quantity of water which has fallen in this State the present year is altogether unprecedented,* yet it is well known that every few years we may expect what is called a wet season, the effects of which on each plantation in the State, are in exact inverse proportion to the extent of its drainage. It is in such seasons that the most striking contrasts are shown between the results of skilful and imperfect cultivation; but it is a great error to suppose that drainage, thorough and perfect drainage, is without its influence in the driest season. In the alluvial soil of our Mississippi river, and the bayous leading out of it, exposed to the action of the water which filters through the banks, and which in the spring of the year is rendered icy cold by the melting of the snows in the northern regions, from which it flows, it is impossible to over-rate the importance of draining. The effect of this low temperature of the water which penetrates into our fields is so great, as perceptibly to retard the spring vegetation, unless means are taken to obviate its effects. In the recent experiments of planting cane in the parish of Rapides, it has been observed that the cane is earlier and more vigorous in its first vegetation, although in a more northern latitude than it is even in our lower river parishes, the soil on the Red river being higher and naturally drier than that on the banks of the Mississippi, and not being exposed to the same deleterious influence of the water percolating the banks of that stream. Now, this very serious injury to the crop is at once obviated by the digging of a deep ditch along the entire front of the field which intercepts the seepage water, and being connected with the drainage canals, carries off this water behind without allowing it to penetrate into the soil, and chill the roots of the plant. But independently of this point, which is peculiar to the plantations in lower Louisiana, the

* A rain guage, kept in New Orleans, shows a fall of rain amounting to more than ten feet, from the first of December 1845, to the first of September 1846, a period of nine months.

general results from a perfect system of drainage, are so eminently useful and profitable that you must allow me to make a brief abstract of some of them, taken from the admirable work quoted below.*

1st. It carries off all the stagnant water, and the excess of what falls in rain. 2nd. It arrests the ascent of water from beneath by capillary action, freeing the subsoil from noxious substances, which, in undrained land, frequently impair the growth of deep rooted plants. 3rd. By keeping the soil porous, it allows the rain, instead of merely washing the surface, to penetrate through the particles of earth, thus carrying to the roots not only the elements of growth existing in the water itself, but dissolving those substances which enter into the composition of the plant, and which the roots are incapable of absorbing, except in a state of solution. 4th. The descent of the water through the pores of the earth is accompanied by a descent of fresh air to the roots, the water displacing the air which previously occupied the pores, and being followed as it runs through the ground by fresh air, which is so valuable in promoting a healthy growth of the crop. 5th. The soil gradually becomes looser and more friable: hard lumps of stiff clay disappear by degrees; crumble more freely, and offer less resistance to the plough. 6th. The coldness of the soil disappears, and this occurs to such an extent, that in the parish of Peterhead, in Aberdeenshire, it is stated as an actual result of extensive drainage during the last twenty years, that the crops mature from ten to fourteen days earlier than they formerly did. Who can estimate the value to a sugar planter of such an addition to the time of the grinding season? 7th. It is equivalent to an actual deepening of the soil, the roots of plants being invariably arrested in their downward growth when they meet with stagnant water in the subsoil, which deleterious effect is at once removed by drainage, and new, wholesome, and abundant nourishment furnished to the roots, which nourishment would have remained forever dormant in the soil, if not rendered accessible by the drainage. 9th. It is a necessary preparation for the effectual application of manure or other means of improving the soil, the efficiency of which is but partially felt in undrained land.

To these advantages which are common to all crops, whether annual or perennial, must be added two of paramount importance in the cane crop in this State. The first is the security against loss by frost, which, as every planter knows, will frequently congeal and destroy the cane in damp places, when that part of the crop which is in the highest and driest land, will escape injury. The second is the preservation of the ratoons. I am thoroughly convinced that perfect drainage will create

* Johnson's Lectures on Agricultural Chemistry and Geology, p. 306.

an entire change in our present system of planting, and enable us to preserve the rattoons for six or eight years instead of two or three. The only reason for the greater duration of the rattoons in the West Indies, is the higher temperature; the stubble there is never frozen. Now, in Louisiana there rarely occurs a winter in which the ground would be frozen to a depth at all sufficient to injure the stubble, if the land were freed from moisture; but when the soil is saturated with water, which is a good conductor of heat, the caloric is radiated into the atmosphere, ice is formed, and the cane is thus imbedded as it were in a mass of frozen soil, whereby the eyes are destroyed and vegetation effectually prevented. Similar results follow even if the winter be mild, as many of the eyes must rot from long exposure to the water in a damp soil in the season during which vegetation is suspended. If by thorough drainage these effects could be avoided even to a partial extent, the gain would be very great, not only in diminishing the quantity of seed required for replanting, but in saving the labor of matrassing in the fall, and that required for preparing the ground and planting the seed in the spring.

Manufacture of the Sugar.

A sugar plantation is incomplete without its workshop, that is, its sugar-house. The owner is manufacturer as well as agriculturist, and the manufacture is one of great delicacy and difficulty. Until within a very few years the process has been of the rudest and most primitive character. A partial extraction of the juice was effected by the simplest and most imperfect machinery: the juice when extracted was tempered with lime which was added empirically without measure or proportion, and with scarce any regard to the varying quality of the juice, and thus tempered was boiled in open kettles over a fire, until evaporation produced a sufficient concentration of the saccharine matter to admit of crystallisation on cooling. The loss to the planter exceeds belief: the sugar-cane treated with care in the laboratory of the chemist yields eighteen per cent. of its weight in pure sugar, whilst in the rude process above described, its yield is scarcely five per cent. Such until a few years ago was the process *universally* used in the plantations of the West Indies and Louisiana, and such is now the process on very many estates, with occasional trifling improvements, none of which suffice to carry the yield beyond one-third of the real quantity of sugar in the cane. It is to the French chemists who have of late years devoted all the resources of science to the improvement and perfection of this manufacture that we are indebted for the vast strides which it has recently made. Their studies, however, have been principally directed to the extraction of sugar from the beet, and so successful have been their

labor that although the proportion of sugar in the beet juice is generally speaking, only about eleven per cent. and although this juice is much more impure in its chemical constitution than that of the cane, the beet sugar manufacturers of France obtain a per centage of sugar equivalent to that usually obtained from the juice of the cane. It is much to be regretted that the light shed by science on the composition of the cane is still so defective, nay, that the published works on the subject are calculated in some instances to mislead. M. Peligot is one of the most eminent of the French chemists, and his report on the constitution of the cane is generally cited as the first authority on the subject, yet it is impossible that some of his conclusions can be correct. It results from his analysis that the composition of the cane in its various states, conditions and *periods of growth* is almost identical, or in other words, not only do the same elements combine to form the cane, whether the first shoot that issues from the ground, the ripe joint or the immature top, but that these elements *are combined in the same proportions!* The following table represents his view of the chemical composition of the cane at the several stages of its growth :

	Water.	Soluble matter. (sugar.)	Woody fibre.
First shoots,	73.4	17.2	8.9
Sec'd " from original sprouts, . . .	71.7	17.8	10.5
Third " " second " . . .	71.6	16.4	12.
Fourth " " third " . . .	73.	16.8	10.2
Inferior part of cane,	73.7	15.5	10.8
Middle " "	72.6	16.5	10.9
Superior " "	72.8	15.5	11.7
Knots " "	70.8	12.	17.2
Cane of eight months,	73.9	18.2	7.9
Cane of ten months,	72.3	18.5	9.2

It may be said without presumption that this analysis can by no possibility be correct, the daily experience of every planter being at war with the supposition that the same quantity of sugar exists in the unripe tops as in the lower joints of the cane. If their chemical composition were identical, the same treatment of the juice of the tops and of the ripe joints would not only produce the same quantity, but the same quality of sugar, and this is known not to be the fact. M. Hervy, another eminent chemist declares that cane sugar is a primary secretion of the plant and that it does not mature like the sugar of fruit from pulpy matter, but is contained alike in the old and new knots. This statement of M. Hervy is quoted without dissent by Professor R. S. McCulloch in his report to Congress in February, 1845, but this able chemist has since been engaged himself in analyses of the cane in the Island of Cuba, and in a conversation last spring, assured me that he felt satisfied this was a mistake. The results of this gentleman's labors will be laid

before Congress at its ensuing session, and cannot fail to be of vast interest and importance to our planters.

But, however, imperfect and erroneous may be the analyses already published, one fact appears to be now established by the concurrent testimony of numerous distinguished scientific writers, and this is that the juice of the sugar-cane properly treated will yield nothing but pure crystallized sugar, and that the molasses so far from being naturally an element of the juice, is in reality manufactured by our imperfect process. On this point the testimony of M. Boussingault is conclusive, for in citing the experiments of Peligot, Hervy, Dupuy, and Casaseca, he says "I have myself oftener than once seen the juice of the cane yield nothing but crystallizable sugar."

The first and almost insurmountable difficulty in obtaining from the cane all its sugar results from the imperfection of the mills used to extract the juice. The cane contains ninety per cent. of juice, and ten per cent. of woody fibre, which is of a spongy consistence. The cane is crushed between cylindrical iron rollers, three in number, placed horizontally and moved by the steam engine. The quantity of juice thus extracted rarely exceeds two thirds of that contained in the cane, so that from this cause alone the planter loses one third of his crop, which remains in the bagasse. All efforts have hitherto proved fruitless to diminish this enormous loss. An experiment was made a year or two ago by Col. Maunsel White on his plantation in the parish of Plaquemines, to extract a further quantity of juice by subjecting the bagasse to a second pressure between two additional rollers, but mechanical difficulties presented themselves which he was unable to over-come.— During the present season another experiment will be made by Mr. P. M. Lapice on his plantation in St. James, with rollers differently arranged, and sanguine hopes are entertained of success. In order, however, to obtain any considerable addition to the yield of juice, it will probably be necessary to overcome the absorbing power of the spongy matter of the bagasse, and force it to yield its contents of juice by some expedient similar to that recommended by M. Payen, and mentioned with approbation by Mr. Dumas in his treatise on chemistry. These authors suggest that a steam-pipe be led from the boilers to the bagasse rollers passing along them just below their line of contact and perforated with small holes. A cock fitted to this pipe would admit the steam whilst these rollers work, and this steam escaping through the small holes would moisten the bagasse sufficiently to aid very much the extraction of the juice. Experience alone can determine whether the water thus added to the juice would dilute it so much as to counterbalance the advantages derived from the increased quantity.

Two-thirds of the juice being thus extracted from the cane, its conversion into sugar is attended with further loss. The juice as it runs from the mill is impure. It is impregnated with feculencies, with the dust and earth which have adhered to the cane when cut, with the coloring matter of the rind, much of which is pressed out by the rollers, and with fragments of the fibrous matter, both of the inner and outer part of the stalks ; this latter containing inorganic bases, principally silicon. Before commencing the manufacture of the sugar, all careful planters take pains to purify the juice as far as possible by mechanical means. The juice runs into a vat divided into separate compartments, by one or more tissues of iron or copper wire, by which all the grosser impurities are arrested, and the juice thus cleansed is ready for the first operation, which is the defecation or clarification. According to the old system of manufacture in kettles, this defecation was effected by boiling the juice over an open fire, tempering it with lime in variable proportions, and skimming off the scum as it arose to the surface. The loss of juice, in this operation, is four or five per cent. The juice thus defecated was passed from one kettle to another, (the number of kettles being generally four, but sometimes five or even six,) until it reached the last kettle, called the battery, in which it was finally concentrated, till the syrup attained a density of about forty-two degrees of Beaumé's saccharometer, at which point it was ladled out of the battery into large wooden vats, called coolers. It was retained in these coolers till its crystallization, generally about twenty-four hours, at the end of which time it was taken out and placed in hogsheads in the draining room or purgery over a cistern, into which the molasses fell as it drained through holes placed in the bottom of the hogshead. The sugar thus drained was generally ready for market in two or three weeks. I give but a very meagre and hasty outline of the process hitherto pursued, because it is familiar to nearly all your readers ; and I shall require several pages in giving some of the details of late improvements. I will merely remark, that this system produces a sugar highly colored, containing a large quantity of molasses, say about fifty gallons to each thousand weight of sugar, and consumes a large quantity of fuel, amounting on an average to two cords and a half of wood per hogshead. This large quantity of molasses is produced as above remarked by the imperfection of the manufacturing process, as none exists naturally in the juice of the cane ; and as molasses rarely sells for more than one-third of the price of sugar per pound, the loss suffered by the planter in this item is again very serious.

Such was the mode generally, nay, universally adopted in the manufacture of sugar, till within the last twelve or fifteen years, when an apparatus

was introduced into the French colonies, the joint invention of Mr. Degrand and Messrs. Derosne and Cail. This apparatus is now generally called by the name of the latter gentlemen ; that is, the Derosne and Cail apparatus. Subsequently, different modifications have been suggested, and particularly by Mr. N. Rillieux ; and it is my design to point out as succinctly as is consistent with clearness, the process of Messrs. Derosne and Cail, the modifications by Mr. Rillieux, to compare their advantages, and to explain their vast superiority over the old system. This sketch, however imperfect, must necessarily interest all of your readers who are engaged in the sugar culture ; the more especially, as within the last three years, a spirit of enterprize has been awakened, of which few, perhaps, are aware. There are now twenty-five or thirty plantations on which the manufacture, by the kettles, has been abandoned, and in nearly all of them the syrup is refined by the use of animal charcoal or bone black, to which I shall presently refer. I subjoin a list of these plantations, with some remarks in the note below.*

In the new process of sugar making, the furnace used under the kettles is entirely dispensed with, and the evaporation and concentration of the juice are effected solely by steam. The new apparatus, therefore, requires a larger quantity of steam than is used merely for working the mill, but the additional quantity is much smaller than would be

* List of plantations in which the manufacture in the kettles has been abandoned in whole or in part.

1 Mr. Johnson,	10 A. Lesseps' upper plan'n	18 E. J. Forstall,
2 Mr. Osgood,	11 Thos. Morgan,	19 P. M. Lapice,
3 Mr. Wilkinson,	12 Verloin Degruys,	20 Judge Butler,
4 Maunsel White,	73 C. Zerique,	21 — Key,
5 Samuel Packwood,	14 L. Millaudon,	22 Letorey,
6 A. Lesseps,	15 Chauvin and Levois.	23 Lamiraut,
7 A. Gordon,	16 J. B. Armant,	24 Kitridge,
8 Robert and Jas. Urquhart,	17 Valeour Aime,	25 Lucien La Branche.
9 Benjamin and Packwood,		

All of these changes have been made within three years, except Mr. Thomas Morgan and Mr. Valcour Aime, who have used forms to refine their sugar for many years. On nearly all these plantations bone black is used. Messrs. Johnson, Osgood, Wilkinson, Morgan, Armant, Aime, and Lapice, use forms ; Messrs. Aime, Armant, and Lapice, have complete refineries, with all the necessary apparatus. The only two apparatus on the Derosne and Cail plan are those of Mr. Aime and Mr. Lapice. Mr. Rillieux's apparatus is now used, complete, on eight plantations, viz : Mr. Samuel Packwood's, two plantations of Mr. Lesseps', Benjamin and Packwood, V. Degruy, C. Zeringue, Chauvin and Levois, and J. B. Armant. All the other planters above named, use vacuum pans for granulating their sugar, except Mr. Forstall, whose apparatus consists of a set of open pans, boiled by steam.

supposed, for the reasons which will be presently explained. It will be observed here, as a matter of no small moment, that but one fire is required during the whole grinding season: that this fire is under the boilers, which are almost always outside of the sugar-house: that the additional fuel required for one or two extra boilers, used in generating steam, for the manufacture of the sugar, is much less than that required for boiling a set of kettles; and thus we have at the very outset two great advantages, the diminution of the fuel and absence of risk of fire, as none need enter into the sugar-house, which is kept thoroughly warmed by the heat of the different steam-pipes and of the pans in which the sugar is made.

We will now take the juice as it flows from the mill, after passing through the wire cloth, and examine its treatment, in detail, by the Derosne and Cail apparatus. It first flows into defecators, which are iron kettles with a double bottom, technically called a steam-jacket. The steam from the boilers is conducted by a pipe which is connected with this steam-jacket, and which is provided at the opening into the steam-jacket with a cock, by which steam can be admitted or shut off at will. In these defecators, the first operation of cleansing or defecating the juice takes place, and in them the lime is introduced. Different opinions exist as to the proper time of introducing the lime, some mixing it with the juice when cold, and others preferring to await its rise to a temperature of about 150 degrees of fahrenheit. I think the latter plan preferable, and believe it to be also quite essential not to introduce the lime without previous preparation. This is especially important, when our common oyster shell lime, manufactured on plantation, is used, as it almost invariably is combined with a notable proportion of potash, which has a powerful effect in causing sugar to deliquesce. Impurities of a similar kind, but less abundant, are also found in the Thomaston and Western lime, used by most planters. The nature of the action of lime on cane juice is somewhat involved in obscurity. One effect is to saturate a small quantity of acid, which is always found in cane juice, but the quantity which is used with advantage in defecating far exceeds that which is required for destroying this slight acidity. Besides this effect, there is no doubt that the lime has a certain action, whether mechanical or chemical is not fully known, upon the mucilaginous or gummy matters found in the juice, by virtue of which it causes those matters to unite in a thick scum on the surface of the juice when heated.

It has unfortunately been impossible hitherto to discover a fixed rule by which to regulate the proportion of lime required for a given quantity of juice, and indeed this proportion is necessarily variable according

to the quality of the juice and the nature of the soil on which the cane is grown. Ripe juices, and juices the product of calcareous soils, require much less lime than those which are extracted from unripe cane, or those produced on lands rich in animal or vegetable manures. In order to attain the proper proportion, and at the same time to avoid mixing with the cane juice any of the impurities that occur in un-slacked lime, Mr. Payen advises the following process which recommends itself by its simplicity, and which I detail, because all agree that the defecation is the most important operation in the whole process of the manufacture. The lime should be slackened with care, and in quantities large enough to last for some weeks. It should be slackened by successive additions of warm water, and slowly stirred, so that the water may penetrate every part of it as equally as possible, and should be repeatedly washed, by allowing it to settle and pouring off the water from the top. The potash or other impurities will be dissolved and carried off by the water, and the lime remain pure. In this state if covered with water, it will remain for several weeks without being perceptibly injured by atmospheric action, and the whole mass will be of one quality. When used, it should be mixed with water to an extent sufficient to make a milk of lime marking 13 or 14 degrees of Beaume's saccharometer. A fixed quality and density being thus obtained, it only remains to ascertain by experiment what proportion of this lime, thus prepared, is required for a gallon of juice, and Payen advises the following mode: Prepare six separate equal quantities of lime, say one pennyweight each; then heat a gallon of juice, and when it has reached 150° of Fahrenheit, add one portion of the lime: continue the heat till it almost reaches the boiling point, then withdraw from it a table spoon full of the juice, and filter it through a small filter in a funnel: then add a second portion of lime, replace the juice on the fire and repeat the same operation. Continue till you have added the six portions of lime and have withdrawn six samples of the juice. Place the six samples in their regular order in small phials, and the first of them that shows the liquid to be of a clear amber color, contains the proper dose of lime. The subsequent phials containing a larger quantity of lime, will probably show a clear liquid less highly colored, but in these there is an excess of lime which would give a greyish tint to the sugar, and it is an admitted principle that the least quantity of lime that will serve the purpose of defecating, is the best. By this simple test the quantity of lime required will be readily shown: for instance, as there are twenty pennyweights to the ounce, if it be found that two pennyweights give the proper point to a gallon, we know that we require an ounce of the prepared milk of lime for each ten gallons of the juice—and instead of spoiling entire strikes or

batteries by deficient or excessive doses of lime, the manufacturer would proceed in perfect confidence as long as the quality of the cane juice remained the same, and it would be easy to repeat the essay when a different quality of juice presented itself from a different part of the field. The juice thus tempered remains in the defecator with the steam under it until it reaches the boiling point, for the purpose of ascertaining which, a thermometer is hung with its bulb plunged in the juice. So soon as 211° of Fahrenheit are marked by the thermometer, the steam is shut off by turning the cock. On no account must the thermometer be allowed to pass 212° , which is the boiling point, because ebullition then commences, the effect of which is to break the scum that has formed on the surface, and by stirring the juice to mix the scum with it, and thus destroy the whole operation—at 211° or 212° , it will be found that the impurities of the juice have arisen to the surface, forming a thick scum of considerable consistency. After shutting off the steam a cock is opened under the bottom of the defecator and the juice is drawn off clear, the scum gradually sinking, and as soon as the juice ceases to flow clear, the cock is turned so as to arrest the flow into the juice pipe and open another orifice in a different pipe which carries off the scum. The great superiority of this mode of defecation over that in the open kettles, is palpable. The perfect control which the manufacturer has over the heat applied to the juice, enables him to arrest it at a given point and thus prevent ebullition, which, in the open kettles, is constantly going on ; the scums in the latter as they arise are only partially removed by the skimming paddles, and by the continual motion which the ebullition imparts to the fluid, some of the impurities become so mixed up with the juice as to make it impossible to separate them.

The juice thus defecated flows through a pipe placed under the defecator, and which carries it to the filters. The filters used in the Derosne and Cail apparatus are called the Dumont filters, that being the name of the inventor, and their use forms perhaps the greatest improvement in the manufacture of sugar that the present century has produced, not even excepting the vacuum pan of Howard. These filters are iron cisterns nearly cylindrical : are six feet in height, five in diameter at the top, and four and a half at the bottom. They are filled nearly to the top with animal charcoal, or bone black in coarse grains about the size of cannon powder. This bone black is the carbonaceous substance into which bones are converted by calcination in close vessels. It possesses the extraordinary property of appropriating to itself the coloring matter of nearly all fluids that are filtered through it, and so powerful is its agency in this respect that in testing the qualities of some bone black offered me for sale, a dark colored claret was so completely discolored in a single

filtration through a depth of twelve inches of the black as to be undistinguishable by the eye from the purest spring water. Another property possessed by this singular substance is that of abstracting from syrup any excess of lime that may remain after the defecation, and in addition to these two inappreciable advantages in the manufacture of sugar, it increases the crystallisation to an extent that is scarcely credible, amounting according to some experiments to eighteen or twenty per cent. The introduction of this powerful auxiliary has created a complete revolution in the process of manufacturing and refining the beet sugar in France, and the result in Louisiana must inevitably be the same. The only draw-back to its use was its cost, because formerly it was thrown away as soon as repeated filtrations had saturated the black with the coloring matter and impurities of the syrup to such an extent as to deprive it of its efficacy; but the discovery of a mode of renovating, or as it is technically termed *revivifying*, the bone black has obviated this difficulty by enabling the manufacturer to use the same black for an indefinite length of time with but little loss in quantity or quality. The process of revivification is simple and not expensive, but the length of this article prevents my describing it in detail. The cane juice in passing through the filters is purified, brightened, and flows from a cock at the bottom ready to undergo the next process which is that of evaporating the water which it contains.

The evaporation is conducted by a very ingenious process, the invention of Mr. Degrand, and calculated particularly with a view to economise the quantity of cold water required to condense the exhaust steam from the vacuum pan used to boil the syrup up to the crystallising point, and which will be subsequently described. It is impossible to give an intelligible explanation of this part of the process without a plan of the condenser, but my object is to state the mode of manufacture, not the mechanism of the apparatus. With this view it will suffice to state that the juice is made to fall over a steam pipe, through which the exhaust steam from the vacuum pan returns to the boilers, and that a double effect is thus produced: the juice by falling in a shower over the hot steam pipes, is concentrated to 15 or 16 degrees of the saccharometer instead of 8 or 9, and at the same time serves to condense the exhaust steam which is pumped back in the state of hot water into the boilers. The economy of fuel is here very great, as none of the heat of the steam which boils the vacuum pan is lost, all either serving to evaporate the juice or being returned to the boilers.

The cane juice has now become a syrup of a density of 15 degrees, and is immediately conducted through a pipe into the vacuum pan in which it is concentrated to a density of 28 degrees. From the vacuum

pan it again passes over the filters in order to effect a further discoloration, and is collected into a reservoir from which it is returned into the vacuum pan where it is finally concentrated to the point of crystallisation. This vacuum pan, its theory, its action on the syrup and its advantages are matters of very great interest to the planter and require some development. I must be excused if in explaining them I am compelled to state a few familiar general principles of physical science in such manner as to make the subject intelligible to those whose attention has never been directed to these matters.

It is known to all that if heat be applied to water until the thermometer marks 212° , vapor will be formed and the water will all pass off in steam if the heat be continued for a sufficient length of time. This is the evaporating point of water in the open air. It is equally well known that the atmosphere of our earth presses on all objects with a weight which is calculated to be equivalent to fifteen pounds per square inch of surface. The tendency of water to evaporate into steam is therefore repressed in the open air by a weight of fifteen pounds on every square inch of its surface, and it has been found that if this pressure be withdrawn the water will evaporate at a much lower temperature than 212° , and the same principle applies to other liquids. If, therefore, an air tight iron pan be made, and if a vacuum be formed in this pan by withdrawing the air by means of an air pump, water introduced into this pan would boil at a temperature diminishing in proportion to the diminution of the pressure of the air. It is difficult to say what would be the lowest temperature at which it could be made to boil because a perfect vacuum is not attainable by any means yet invented, but a vacuum can readily be produced by the air pump, in which water would boil at a temperature of 120° . A vacuum pan for making sugar then is an iron vessel, now generally made cylindrical, air-tight, connected by a pipe with an air pump worked by the steam engine, whereby the air is withdrawn from the pan to an extent sufficient to diminish the pressure of the atmosphere so far as to enable us to boil the syrup at a temperature varying from 130 to 160 degrees, instead of 235 or 240 degrees, which is the boiling point of syrup in the open air when concentrated to the density of 42° or 43° of the saccharometer. The vacuum pan is heated by means of a steam jacket or steam pipes, or both, and it is the steam which has served for this purpose that in escaping passes into the condenser mentioned above, and serves to evaporate the cane juice and is then returned in the form of hot water to the boilers, to be again converted into steam and renew the same round of service.

Such are the outlines of the system introduced into the manufacture

of sugar by Messrs. Degrand and Derosne & Cail, and before treating of the reasons why the concentration to the granulating point when effected in the vacuum pan, is a vast improvement over the boiling in the open air, it will be convenient in this connection to point out in what respect the apparatus of Mr. Rillieux differs from that of Derosne and Cail, and to compare the advantages of the two systems. In the Rillieux apparatus, the defecators, the filters, the vacuum pan for granulating the sugar after the concentration of the syrup to twenty-eight degrees, are all borrowed from the Derosne & Cail apparatus. There may be some difference in mechanical details, but the principle and manner of working are substantially identical. But to Mr. Rillieux is justly due the credit of a very ingenious and admirably efficacious mode of evaporating the juice and supplying the caloric necessary for the granulating pan with very great economy of fuel. In cane juice at nine degrees of density there are $83\frac{1}{2}$ per cent. of water, and at 28 degrees there are but $48\frac{1}{2}$ per cent. of water. In order, therefore, to concentrate the juice from 9 to 28 degrees, it is necessary to evaporate from the juice 35 per cent. of the water. Mr. Rillieux conceived the happy idea of making use of the steam that is evaporated from the juice itself in order to boil his pans, and the planter who is accustomed to see the enormous quantity of vapor that is carried off into the air through his steam chimney when he boils in the open kettles, can form some idea of the very great economy of fuel that must necessarily result from making this quantity of steam subservient to his use during the grinding season. Mr. Rillieux's apparatus effects this object. It consists when made on a scale sufficiently large, to make from twenty to twenty-five hogsheads of sugar per day, of four pans, all constructed so as to afford a vacuum. But the vacuum in the two first pans is not nearly as perfect as in the two last. The operation is conducted thus : the cane juice after having been once filtered is introduced into the first pan, and this pan is boiled by the exhaust steam from the cylinder which works the mill, thus avoiding the necessity of abstracting any steam directly from the boilers. This first pan is so constructed that the steam which arises from the juice as it boils is conducted into the pipes that heat the second and fourth pans. In the first pan the quantity of steam that arises is quite sufficient for this purpose, but if at any time it be found that the fourth pan in which the sugar is granulated is not supplied with a sufficiency of steam from the first, a communication can be opened to the exhaust steam from the engine which supplies any deficiency, and enables the sugar maker to bring his battery to the striking point as rapidly as he may desire. The juice is brought up to fifteen or sixteen degrees in the two first pans, and the steam from the second pan is made to boil the

third in which the syrup is concentrated to twenty-eight degrees, when it is passed through the filters, and then conducted to the last pan in which it is granulated.

I consider the Rillieux plan of evaporation decidedly superior to that of Messrs. Derosne & Cail in several important particulars. 1st: the juice is evaporated in a close pan and is excluded from atmospheric action, whereas in the Derosne & Cail apparatus it is exposed to the open air in a state of minute subdivision as it falls in a cascade over the frame of pipes which form the condenser. 2ndly: it is much less liable to derangement than the frame of pipes which frequently gives great trouble, and which, unless in perfect order, injures the juice by deepening its color wherever it remains on any part of the heated pipe long enough to be burnt. 3rdly: it economises the steam which is created by evaporating the cane juice, and which, in the Derosne & Cail apparatus, passes off into the open air through a steam chimney. Against all these advantages the Derosne & Cail offers but one which may be of value in the West Indies in certain estates, but which is of no moment in Louisiana, that is, an economy of cold water.

I give here the conclusion to which I have arrived, after as careful and impartial an examination of the two systems as I am capable of, but if I am mistaken the experience of the present winter will afford ample means of correcting the error. The apparatus of Mr. Rillieux has been erected in its largest size, and in connection with a refinery on the plantation of Mr. J. B. Armant, of St. James Parish, and Mr. P. M. Lapice of the same parish, has erected a magnificent sugar house and refinery on the largest scale with the apparatus of Derosne & Cail in its most improved form. I have every confidence that both these enterprising gentlemen will reap a rich return for their heavy investments in these improvements, and their experience will decide the question of superiority in point of efficacy and economy between the two systems. The only question will be one of degree, for that both will succeed is beyond doubt.

The sole remaining subject which it is my intention to examine is the difference between the system of boiling in the open air, and in the vacuum pan as regards the quantity and quality of the sugar produced. To place this matter in its clearest light it is necessary to state certain conclusions which are the result of the researches and experiments of eminent chemists, who have devoted their time and labor to this subject. I have already mentioned that there is naturally no molasses in the sugar-cane, and that all the molasses which is produced in our sugar-houses is the result of imperfect manufacture. It is not hence to be inferred, however, that it would be possible to manufacture the sugar entirely without

a residue of syrup or molasses. A syrup at 45° density contains 83 per cent. of sugar, and 17 per cent. of water, but if this syrup be allowed to cool in order to crystallise, it will part with only 50 per cent. of sugar in crystals, and the remaining 33 per cent. sugar will be mixed with the 17 per cent. of water, the two together forming what is called the mother liquor, or mother of crystals. If this mother liquor which now contains one third of water be again boiled so as to concentrate it to 45°, and again allowed to cool, the proportion of crystals will again be the same, and there will remain a mother liquor which it will be necessary to re-boil, so that the process might be continued indefinitely and there would still remain a sweet liquid containing a part of the sugar. However perfect the system of manufacture therefore, a residue of molasses or syrup will always be obtained, and the great aim in this manufacture must therefore be, to reduce this residue as far as possible, or in other words to extract from the juice as much crystallised sugar as possible, that being the most valuable product. Now it has been found that a *high temperature*, and *long exposure to heat* are the two greatest obstacles to the crystallization of sugar—that in proportion as the temperature is increased, the quantity of crystals will diminish, and further that in proportion to the length of time that heat is applied, will the crystallizing power diminish. Repeated experiments have placed these two principles beyond question. Those who are curious on this subject will find a very interesting paper in the seventh volume of the Journal of the Franklin Institute, translated from Hochstetter, an eminent German chemist, and containing a series of experiments made on sugar with great care. It results from these experiments, 1st, that access of atmospheric air is not only a condition necessary to produce vinous fermentation, but also to effect the mucous fermentation in the expressed juice of the sugar-cane, and that when the air is excluded no change takes place; 2nd, that a pure solution of sugar is changed through the influence of atmospheric air at a common temperature, and the more readily, the more numerous the surfaces are which bring them into contact, and that this process is considerably heightened when the solution of sugar contains nitrogenous substances, as in the juice of the sugar-cane. This is an important objection to the condenser of the Derosne and Cail apparatus; 3rd, that heat is one of the most injurious agents during the process of manufacture.

A simple application of these principles will shew the vast superiority in the manufacture by the vacuum pan. In the open kettles, the syrup is brought up to a temperature of 235° at least, before it is at the proper point for crystallizing: in the vacuum-pan the temperature is only 150°. In the open kettles the juice from its first leaving the mill till it

is concentrated in the battery, is constantly exposed to the action of the atmosphere : in the Rillieux apparatus it is almost constantly excluded from this influence. Finally, when the sugar is made in the vacuum pan, the simple turning of the steam cock shuts off the heat at the instant, the granulating point is obtained and the whole contents of the pan are then discharged in a homogeneous state. In the open battery it is not possible to stop the fire when the proper point is attained, and during the whole time that the sugar boiler is occupied in discharging the battery, the syrup is becoming more and more heated, that which is on the edges of the surface next to the metal becomes burnt or caramelized, and is not only lost but imparts a deeper color to the rest of the syrup, and also aids largely in forming molasses by preventing crystallization in that part of the syrup with which it becomes mixed.

The effect of the high temperature required in the open battery is such that it is almost impossible to re-boil the molasses which drains from the sugar so as to obtain a second crystallized product in the manner above explained. As this molasses when again put into the battery would require to be a second time exposed to a temperature of 235° or 240°, the action of this extreme heat is such as to render the whole mass totally uncrystallizable ; but in the vacuum pan the re-boiling of the syrups which drain from the first sugars is a regular part of the daily work, and this re-boiling has been effected three times, with successful results of crystallized sugar each time. But the advantages of the vacuum pan do not end here, for it is an easy and simple matter in using these pans to give to the crystal or grain of the sugar any size required by the caprice of the consumer. Large and brilliant crystals resembling sugar candy rather than the sugar of commerce can be obtained at will. The whole process is under the complete control of the manufacturer. The sugar may be made light and porous or compact and heavy. None of this control is possible with an open fire, of which it is impracticable to regulate the heat at will.

It may not be uninteresting in conclusion to make some calculation of the pecuniary results from the introduction of this improved apparatus. I speak now of that of Mr. Rillieux not being able to give as yet any results from the Derosne and Cail apparatus, which has not hitherto been fully tested in this State. Suppose a plantation to produce an average crop of five hundred hogsheads of sugar, a moderate estimate of the profits of the apparatus would comprise,

1st, an economy of one and a half cords of wood for each hogshead, 750 cords at 2.50, \$1875

2nd, an increased value of at least 1½ cents per pound in the quality of sugar produced, equal to \$15 per hhd., . . . 7500

3rd. At least 25 per cent. additional sugar obtained from the molasses, say 125 hogsheads at \$60, . . .	\$7500
from which must be deducted the price that would have been obtained for the molasses—	
15,625 gallons at 15 c.	2343.75 5156.25
	<hr/> \$14,531.25

Making the enormous difference of 14,531.25 in the annual revenue of the planter who makes an average crop of five hundred hogsheads. I am aware that this result is so startling as to provoke incredulity, yet I have purposely placed the lowest estimate possible in each item of the calculation. That there are some draw-backs is not to be denied. I consider it not to be at all practicable, or if so, highly imprudent to rely on slaves to work the apparatus. I think that the planter who determines to adopt the improvements should make up his mind to have in his employ at least two white persons to take charge of the apparatus during the grinding season, so as to have at least one white person at the pans on each watch. Sugar boilers accustomed to the labor and understanding the working of the vacuum pans can be obtained without difficulty for from five to seven hundred dollars each during the grinding season, and will soon be obtained at a lower rate as the demand for services will increase their number, and competition will reduce the price, for the labor is not severe and lasts but seventy or eighty days.—The negroes too, who are employed in the sugar-house require some instructions in the different processes of defecation, filtration, revivification of the bone black, &c., but all these matters are of trifling moment compared with the great results to be attained.

In concluding, may I not be allowed to congratulate your readers on the prospects of permanent prosperity in this the most important branch in our State industry, and largest source of State wealth. A fortunate concurrence of circumstances has rendered harmless the reduction in the protective duty which had been levied in favor of this very extensive manufacture. The sudden and unexpected repeal by Great Britain, of that provision in her laws, which discriminated between sugar grown by slave labor and by free labor, has destroyed the barrier of prohibition which prevented the import into that country of the Cuba sugars; and the still further prospective reduction in the English duties secures us against a competition which must have ruined two thirds of our planters. The largely increased consumption which must inevitably result in Great Britain from the reduction of prices consequent on the diminution of the duty, will suffice to absorb so great a portion of the Cuba crop as to leave to our State almost the exclusive supply of the home market. The extent to which the production of sugar can be carried

in Louisiana is appreciated but by few, but those who reflect on the subject and who feel an interest in all that concerns the prosperity of our State, foresee with exultation the day not far distant when boundless tracts now covered by the primeval forest shall teem with plenteous harvests of the cane; when nearly every plantation shall be a manufactory of refined sugar, supplying not only the wants of our own country, but forming a large item in our annual exports.; when in a word the industry and enterprise of our population shall succeed in developing to their full extent the resources which a bounteous Providence has lavished on this favored land.

I remain with great regard
your friend and servant,

J. P. B.

ART. IV.—COMMENTARIES ON THE CIVIL CODE OF LOUISIANA:
SALE.

It is believed that commentaries on the civil code,* if undertaken at once, from the beginning to the end, would be too unwieldly a work; and it is thought that commentaries on that part of the code which treats of the contract of Sale, could be produced in a short time and laid before the public. The hope has been entertained that if they were not too negligently performed, they might be comprised into a convenient volume, which the profession would find immediately useful.—If the hopes of the commentator were not disappointed, and his labors were thought worthy of encouragement, he would venture on commentaries, successively on contracts of exchange, letting and hiring; rents and annuities, partnership, loan, deposit and sequestration, aleatory contracts, mandate, suretyship, transaction and compromise, respite, arbi-

* The work alluded to will be published in numbers, each of which will contain the commentaries on one of the above titles. They will be printed in such a form as will facilitate their being bound in volumes of a convenient size. Instead of the ordinary mode of paging, the verso page will shew its first article, and the recto page its last. This mode was adopted in order to facilitate the binding of the whole work of the publication of the commentaries on the above titles in the order in which the public may appear to desire it. Thus, if commentaries on the eighth title, that of Exchange, should be thought less interesting, or useful than that of the eleventh, which is Partnership, the latter might be given to the reader before the former.

It is proposed that each article of the work will be followed with a notice of its concordance with, or discrepancy from the Code of 1808, and the Napoleon Code, with that of the amendments proposed by the juris consults who prepared the present. Notes and references to the decisions of the Supreme Court in relation to the articles will succeed, and next others to the acts of the legislature. The decisions of the court of cassation of France, will conclude the notice of each article.

tration, pledge, and mortgage, which embrace the fifteen succeeding titles of the code, including with the present title, those relating to every species of contract.

The following few pages will illustrate more clearly the method of publication, of the civil code, as above set forth, in a *practical* form.—It commences with the title of Sale.

"OF THE NATURE AND FORM OF THE CONTRACT OF SALE."

"Chapter 1. Art. 2413. In all cases when no special provision is made under the present title, the contract of sale is subjected to the general rules established under the title of Conventional Obligations."

"Art. 2414. The contract of sale is an agreement, by which one gives a thing for a price in current money, and the other gives the price in order to have the thing itself."

This article is not in the Napoleon code, but its contents are stated in different parts of it. O. C., p. 344, art. 1.

A sale of land carries with it all the rights arising out of previous stipulations in favor of the purchaser relative to the property sold.¹ So the purchaser is bound by all the incumbrances, and can get no relief but against the seller.² Whether the vendee can recover land which the vendor before the sale, swore belonged to the person in possession?³ A sale reserving a passage of feet, is not of a right of way only, but of the land.⁴ If the thing sold be defective, and the seller appear to make it good and does so, and the purchaser consents to receive it, the latter cannot refuse payment.⁵

There is no sale without a price,⁶ in current money.⁷ It is not of the essence of the price that it be *expressed* with certainty, but that it be *so agreed* upon—*id certum est quod certum reddi potest.*⁸ A sale without a price is invalid as such, but the act containing it may be evidence of a donation.⁹ The price must be a serious one; *id est*, bear some proportion to the value of the thing.¹⁰ When a consideration had been stated to have been paid by one of the parties, and agreed to have been received by the other, but no specific sum was mentioned, *held*, that there was no sale.¹¹ If the owner state merely that he *transfers* and *delivers* the possession of a slave, there is no sale.¹² If property be transferred to be sold, the proceeds applied to the transferee's creditors, and the excess paid to him, there is no sale; and the property may be seized by his creditors.¹³ A transfer for a stated price, with an engagement to deliver slaves when required, and that in the mean time they may become the property of the purchaser on payment of the price, does not vest the property in him be-

(1) Stafford vs. Grimball, 13 M. 555. (2) Police Jury vs. Gardner, et al., 2 Rob. 145; 1 L. 38. (3) Davis vs. Prevost's Heirs, 13 M. 65; ib. 12, M. 445. (4) Du-courneau vs. Marigny, 4 M. 712. (5) Lynch vs. Postlewait, 7 M. 215; 5 L. 19.—(6) Wilson vs. McHugh, et al., 1 L. 383. (7) Maguire vs. Amelung, 12 M. 650; Semple vs. Fletcher, 5 M. 384. (8) Walker et al. vs. Frost et al., 3 L. 538.—(9) D'Orgenoy vs. Droz, 13 L. 386; Rhodes vs. Rhodes, 10 L. 90. (10) D'Orgenoy vs. Droz, 13 L. 386; post 2439. (11) Connroy vs. Boudier et al., 6 L. 349; Holmes vs. Patterson, 5 M. 693, 11 M. 447. (12) Calvit vs. Compton, 15 M. 88. (13) Bynum vs. Armstrong, 17 M. 169; Hyde vs. Groce, 19 M. 574.

fore payment.¹ If the price is to remain with the purchaser, he paying interest, and in case of insolvency, he is to be considered as a lessor, until that event the contract is one of sale.² A transfer at a stated price, the interest on which to be paid yearly, with a reversionary clause on failure of payment, is valid as a contract of sale.³ A receipt of the price of immovable property in an act *sous seing privé*, is evidence of a sale; and if possession follow, subsequent mortgages are bound.⁴ Although the seller acknowledge the receipt of the price in the act of sale, he cannot afterwards deny it; and the wife may show that the price of her paraphernal property sold by her, was actually received by her husband.⁵ A sale à reméré, the price of which is a debt of the seller, which he promises to pay on a given day, becomes absolute, on his failure.⁶ On a sale for a stipulated price, part of which is paid and to be forfeited if the balance be withheld, the purchaser cannot claim this partial payment without affecting that of the price.⁷ A sale of the usufruct of slaves, which are to become the property of the usufructuary on his paying the price on a fixed day, otherwise to return them, does not divest the seller's title, unless payment be made accordingly.⁸ The demand of the price cannot be resisted on the ground of the insufficiency of the powers of the agent who raised the mortgages, if they were actually raised.⁹ He who faithfully pays the price is a purchaser in good faith, although the seller has not a good title.¹⁰ A sale on the eve of bankruptcy, unless the price be actually received, is null; so if the consideration be a debt of the seller.¹¹ A sale for services rendered is a dative en paiement, which transfers the title.¹² Whether a writing declaring property to be sold for the purpose of securing the debt, be evidence of a mortgage, or sale, query?¹³ If a joint proprietor convey his interest to his co-proprietor for a stated price, there is a sale and no partition; and the parties incur the rights and obligations of seller and purchaser.¹⁴ An heir may alienate his interest, although this may be a partition with his co-heir.¹⁵ A sale expressing a price, and clothed with every requisite formality, will be disregarded, if the purchaser have given a counter letter, declaring that the sale was fictitious and without consideration.¹⁶ If one purchase for another, and the former advance his own money, taking a bill of sale in his own name, and agreeing to a transfer on the reimbursement of his advances, the sale is conditional.¹⁷ The purchaser of a lot between Levee street and the river, in New Orleans, cannot resist the payment of the price on an allegation that the ground was a locus publicus, which the city had no right to sell, even if he was the owner of the lot on Levee street, the value of which is diminished by the erection of buildings between it and the river.¹⁸ If the purchaser do not take possession, nor take a copy of the authentic act, and makes a donation, a subsequent purchaser (from the seller) who takes possession, will repel the donee's claim.¹⁹ A sale to the son for the father will not bind the latter without his ratification.²⁰ Sale of a ship to be delivered at Liverpool, does not authorize the purchaser to take possession of her in New Orleans, to avoid an attachment

(1) McBurney vs. Flagg, 11 L. 335. (2) Mayor vs. Duplessis, 5 M. 309. (3) Kemper vs. Armstrong, 12 M. 299. (4) Richards vs. Nolan, 15 M. 338; Henry vs. Hyde, 17 M. 633. (5) Foster vs. Her Husband, 6 L. 26. (6) Forestall et al. vs. Blanchard, et al., 12 L. 5. (7) Noe vs. Taylor, 13 L. 253, 544. (8) McBurney vs. Flagg, 11 L. 336. (9) Ball's Admir. vs. Ball, 15 L. 119. (10) O'Conner et al. vs. Barre, 3 M. 458. (11) Brown vs. Hennen, et al., 3 M. 274; Broussel vs. Dukeyles Syndics, 4 M. 218, 4 L. 127. (12) McGuire vs. Amelung, 12 M. 650. (13) Smoot vs. Russel, 13 M. 523; but see Hutchings vs. Field, 10 L. 243; Deshaulets vs. Gravier, 19 M. 29.—(14) Daquin vs. Coiron, 3 L. 397. (15) Goodwin vs. Chesneau's Heirs, 15 M. 417. (16) Tagiaser vs. Molinari, 9 L. 517. (17) Villers vs. Morgan, 15 M. 529. (18) McCarty vs. Steam Cotton Co., 5 L. 19. (19) Magor vs. Hopkins, 13 L. 330; Capelly vs. Duneges, 11 M. 669. (20) Magor vs. Hunter, 11 M. 4.

for a debt of the seller.¹ Goods purchased by an agent, are immediately at the risk of the principal.² If the seller is to deliver the thing at a given place, it is at his risk until it reach the place.³ A sale in another state valid there of goods in this, by a person residing here, is void as to his creditors, if he be insolvent.⁴ The benefit of our insolvent laws will not be allowed to a debtor who has, in another state, transferred his property to some of his creditors to the exclusion of others in a manner authorized by the laws there, if the transfer be fraudulent under the laws of this State.⁵

ART. V.—THE MORAL ADVANCE OF NEW ORLEANS.

At the opening of a new commercial season, when our merchants departed for a few short months on business or on pleasure are returning among us, when the rich steamers of the Mississippi are crowding in with the immense resources of the valley country, scattering them at our feet, and a thousand ships of all nations and flags seek employment and gain at our crowded levees, reviving the spectacle of Tyre and of Venice, it is natural to indulge a few reflections upon the past history, the present condition and future hopes of the city.

New Orleans, disguise the fact as we may, has had abroad the reputation of being a great charnal house in which disease and death usurp for ever a horrid empire. We meet this *libel* with the facts. For six years there has not existed an epidemic of any kind in the city. The summer through which we have passed, is no exception. A few sporadic cases only of fever have occurred, attracting far more attention abroad than at home. In no other part of the union have we passed the same season more pleasantly and more healthfully than here. Excluding the chances of visitation from yellow fever, now reduced very low, there is not perhaps in America a city that will show in the past six years a less proportion of deaths to population!

But we have had a worse reputation still. Our city has been conceived a great depot of merchandize, one vast warehouse in which every inhabitant is a mere transient adventurer, without any kind of local feeling or bond of union, constituting together a heterogeneous mass of material from all the world. This charge may have been true—but *that time has past*. Let any man mark the change within a year or two, a change even now in wondrous progress. The increase of private residences, and the neatness, elegance, and in many instances splendour with which these are finished, evidence that something more than mere temporary abodes are intended. Our American citizens are becoming citizens indeed, and the portion of the city which they administer exhibits at this time a spectacle the most surprising and gratifying. This new

(1) Oliver vs. Townes, 14 M. 17. (2) Gilly vs. Logan, 14 M. 209. (3) Lincoln vs. Visaso, 15 M. 325. (4) Shorn vs. Morgan, 16 L. 293. (5) Andrews vs. His Creditors, 11 L. 475.

state of things demands much at our hands. Something higher must be aimed at than mere trade and commerce, high as these may be. *A society must be formed, social institutions promoted, literature encouraged and sustained, intelligence broadly disseminated, and a fixed and settled order of things secured.* To this we are rapidly approaching, and may the day hasten on. From our position, advantages, and prospects, the world has much to expect, and must not be disappointed.

The winter on which we verge cannot fail of being one of great business activity among us. A wider European market must stimulate our exports, and a high degree of prosperity throughout the Union must enlarge and magnify our trade in even greater proportion than before. How shall New Orleans then meet her position?

Let a laudable public spirit take possession of us all. We have made the first step in establishing a system of common schools unsurpassed in the Union. The next step is evident. Education must not be begun only, but completed. The people demand institutions of a higher nature—academies and colleges. The new constitution establishes a UNIVERSITY. This we must have if men are to be reared. Every branch of information can be communicated by it, the useful, the elegant, and the practical. A professorship of the arts, of the sciences, of law, of literature, of agriculture and of COMMERCE—shall we not have these? Have we not wealthy citizens and public benefactors to endow them if that be necessary, and a liberal State legislature; or if another mode be resorted to which would perhaps be better, and the professorships be required to sustain themselves by the attractions which they could throw around the lecture room, as in Germany and Paris, have we not able men, and a population evidencing a disposition to be improved and enlightened?

Last year we had a course of public lectures from many leading citizens on every variety of subject, and with all degrees of interest. These assemblages were of the best order, and the largest hall in the city, night after night, was crowded by them. Here the scenes of dissipation, alas so commonly represented in our city, temporarily lost their seductions, and youth appeared at last to have found a resort more congenial. Do we ask why the revelry by night has been heard among us, and why so many victims have yielded to the dread delusions of vice? the answer is ever made “*the sources of domestic and social enjoyment are so few in New Orleans.* It is impossible for strangers to find any access into society!” Let us aim then to elevate public taste and enjoyment, and to arrest the progress of the mischief we have deplored.

The PEOPLE'S LYCEUM or some other must be opened again. Have there been arrangements made to accomplish this end?

Some of our citizens have established a HISTORICAL SOCIETY. Meetings have been held and officers elected. This society will aim as high as those of other States. It should have a *library*—it should have a *hall* and *public lecturers* of eminence at home and from abroad. We believe that these things will not be neglected. The period is most propitious.

Is it not a little remarkable, that almost nothing, we might say nothing, has yet been done among us in relation to *books* and PUBLIC LIBRARIES? In the first place books. If we examine the shelves of those in the trade, will we find them stocked with the standard literature of Europe and this country? We hear of a valuable work published at the North, we must send for it or wait a tedious time, until it drags itself hitherward. We hear of a work published in Europe, *but it never reaches here at all.* Our booksellers say there is no general demand for such books. They would be unproductive capital. Is this true? Be it so then—shall we not find the works, at least, in public libraries? They *must* be had somewhere. Alas, they are often to be had nowhere, as we too well know, who have so often desired to consult them! What libraries have we at all?

The State has made a collection of public documents and some valuable volumes of a historical nature, in its hall, on Canal street, but these are intended for our legislators, and not for public use.

The Second Municipality has, with praiseworthy zeal, and in a great degree through the enterprize of our fellow citizen, S. J. Peters, Esq., collected near five thousand volumes, large and small. Half of these are for the use of children; but among the rest, we have been delighted to find works of the highest character and value, and have had occasion to refer to them to great advantage. But this neither can be called a public library.

At the Merchant's Exchange there have been, within a few months past, some three thousand volumes, belonging to Mr. French, open to the subscribers of that admirable reading room. This collection we have once before alluded to. It consists in a great measure of the *old Commercial Library*, sold sometime since to the present proprietor. Many of the works here are of the highest interest and value. But what is to become of them? Shall they continue private property—not even accessible to the reading room, as we understand they will not be in a short time; or will not some individual or society purchase them for public use.*

* We cannot omit mention of the NEW EXCHANGE READING ROOM, conducted by Mr. Bravo. There is no finer hall devoted to such a purpose in the Union. Herc may be found the journals of all of our States and of Europe. Here there is already the nucleus of a library; and the enterprising proprietor informs us, that he is about to enlarge it. What more agreeable place can be provided in an evening for one in pursuit of knowledge. We have the kindest regard for every such enterprise as this.

Lastly, we would advert to the library of the *Young Men's Society*, on Exchange Place. This collection of books, though small, is on the increase. The Legislature has evidenced a disposition to encourage it. The members of the society are those connected with commerce. During last season they had a few public lectures, but somehow or other it struck us that but a small degree of interest was manifested. Cannot this society take a stand on the highest ground? Will not the merchants unite in its support? *Strange is it indeed, that in the great Commercial City of New Orleans, we have no Mercantile Association*; a thing that exists in almost every other city in the Union! In New York, Boston, Philadelphia, Baltimore, St. Louis, Louisville and Charleston, these associations are well organized; and give occasion, often, to the ablest reports, and to some of the best specimens of eloquence and ability in public addresses which our country has known; and yet, with all of this, everybody thinks it a matter of course, that there should be none such institution in New Orleans! Will not our liberal and enlightened *Chamber of Commerce* take this subject into serious consideration. The period is at hand when they should act.

Finally, let us in all things then, in the year that is before us, encourage a taste among our citizens for those that are high and ennobling in themselves, and those only that can elevate us to the position, which as a great and growing community, we should so heartily covet.

ART. VI.—SLAVERY ANCIENT AND MODERN.

It has often occurred to us, that the condition of slaves among the Romans, was a subject of interesting inquiry. In some respects, certainly, this class resembles those who now form the subject of property with us. A brief examination of the provisions of the civil law, with respect to them, may therefore furnish proof of this affinity, if not suggest a useful thought to the legislator.

A slave, by the civil law, was regarded sometimes as a thing, sometimes as a person. This view has been followed by the common law of the States where slavery exists. In all matters having relation to the rights of property merely, he is looked upon as a thing; in matters affecting life and limb, he is considered as a person. No action by the civil law was given to a slave, nor could he personally appear to a suit, or suffer condemnation. A judgment against him was declared null, and not capable of satisfaction.

Nor was a slave permitted to appear by counsel, for if it was disclosed that a cause advocated was that of a slave, the defendant was not only

discharged of the process, but also of the claim. This discharge of the claim, however, did not affect the right of the master to pursue the debtor himself. For in the language of Dioclesian and Maximian, there is nothing to judge between a freeman and a slave. This principle had an exception in the case of the slaves of the Prince, who had the privilege of suing and of being sued. Slaves were permitted in some instances to proceed against their masters—for instance, where the master suppressed a will in which their freedom was secured; so they were authorized to denounce masters who carried on a monopoly in provisions, or issued false money, &c.

Very rigid and important provisions existed with respect to fugitive slaves. He who concealed a fugitive slave, was declared to be a thief; and the highest reward given to those who finding them in their possession, without delay conducted them before a magistrate, or surrendered them to their masters. By a constitution of Constantine, a severe penalty was incurred by concealing a slave. The party was forced to restore a similar slave, or to pay twenty pieces of gold. The military were authorized to enter into the country houses, and upon the lands of senators, and into the cottages of the peasants, in search of fugitive slaves. Letters of the prince required magistrates to protect such persons as searched for these persons under the penalty of one hundred pieces of gold, which was also the penalty prescribed for opposing them. Masters had also a right to demand the assistance of magistrates and the military in aid of their recovery, and of the punishment of persons concealing them. The Presidents of provinces had power to authorize a search into suspected mansions, and to prescribe a penalty in the case of a refusal; and even the pleasure house of the prince was not exempt from the scrutiny.

One arresting a fugitive slave was bound to convey him immediately before the magistrate, who was required to guard him in such manner as to prevent his escape, and for this purpose he was authorized to cause him to be chained. Great care was taken to identify such fugitives. Their names, description, and the name of the masters to whom they were reputed to belong, were submitted to the magistrates; and very particular directions were given as to their marks, which referred to a practice common to the Romans, of impressing letters or marks called *stigmata* or *subverbustæ*, with a hot iron. These formalities were evidenced by a public writing, or one affixed upon the place of their seclusion. A singular rescript of Antonine Pius, declared that if a fugitive slave was delivered up for combat in the public games, he was not in being thus exposed to death, withdrawn from the power of his master, but should be delivered up to the master, either before or after he

had encountered the wild beasts ; for often, says the rescript, slaves love rather to enter into combats of the arena, than into the hands of their masters, and be punished for their robberies and other crimes.

If fugitive slaves were not claimed by their masters, they were sold by the prefect of the night guard ; and if recognized by the owner within three years, the price for which he was sold was surrendered. There seems to have been additional punishment in case the fugitive slave passed himself as a freeman. A species of international provision also existed, by which it was made the duty of foreign nations, in case fugitive slaves were arrested within their limits, to condemn them to the mines, or some similar punishment. In the sale of such slaves the rule *caveat emptor* prevailed, to evidence which they were sold publicly, bound hand and feet.

The State retained the power of making slaves of persons born free, in the case of soldiers deserting in times of war, of persons guilty of high capital offences, where such condition was imposed as part of the sentence, and of a free woman amorphously affected towards a slave, &c.

There was one provision with respect to slaves among the Romans which might be profitably adopted as a regulation by individuals of our own society ; it was, that it was not permitted that slaves should be interrogated upon matters concerning their masters, but in case of incest and conjuration. If this rule were strictly enforced, it is probable that more than half of the gossip and slanders agitating communities would be cut off.

By the law we are considering, the seller of a slave was held to guarantee not only his bodily, but also his moral soundness, and he was likewise bound to expose their deficiencies if known. In truth each slave carried to the public place for sale, had attached to his person a writing, upon which was set forth all his good as well as bad qualities. The consequences resulting from the condition of enciente women, were exceptions to this principle of guarantee. If a slave committed theft on the instigation of his master, the slave was punished in proportion to the theft, or the damage resulting. This seems to be the better reading of the 105 law of the twelve tables.

It deserves consideration while upon this subject, that notwithstanding severe and unjust strictures are indulged in against slave holding communities, very beneficial laws are found to exist among them in our day. For instance, it is held that the owner of a slave is under a moral and legal obligation to supply his necessary wants ; nor can he avoid the obligation thus to provide for him by permitting the slave to be absent. So the hirer and owner are both liable for the value of medical attendance furnished the slave, a decision reflecting very honorable distinction upon

the humane court making it. *Gibson v. Andrews*, Ala. R. 66. *Hogan v. Carr* 6 Ala. 471. So if a hirer refuses to provide medical aid for the slave, and insists on his laboring when physically unable, the owner may take him into possession, provide the necessary attention, and still hold the hirer liable for the sum stipulated. *Ibid.* The contract of hiring covers also an agreement that the slave shall be honestly employed; and if a hirer incites a slave to any immoral or dishonest act, the master may rescind the contract of hiring. *Rasco v. Willis*, 5 Ala. R. 38. We are surprised at every step of an investigation into the subjects of the civil law, to find how much of the principle of that law has become, without the authorities knowing it, parts of our slave law. In illustration of this position it may be affirmed that the principle of the case of *Rasco v. Willis*, cited as above, is the fruit of the civil law; for in book XLV of the Pandects, tit. 3, § V, we find the following:

"Male fidei possessori servi, ex nulla causa per servum acquiri potest."

"He who possesses a slave in bad faith, ought to acquire nothing by the slave."

The right of holding slaves was defended by the Romans on two grounds: 1st. That the custom of nations had made enemies, taken in war slaves to the conquering power; and 2nd: That men who had no property to exchange for the means of subsistence, had authority to sell their liberty for the subsistence thus furnished by others. And as was the condition of the parent, so should be the condition of the child.

ART. VII.—THE COTTON CATERPILLAR.

NEW ORLEANS, October 26, 1846.

No. 6 Exchange Place.

To the Editor of the Commercial Review.

SIR:—About eighteen months since it was made known to me, by Messrs. Serda & Shuetze, apothecaries of Poydras street, near the Poydras Market, that the German farmers were in the practice of immersing their wheat, rye, and tobacco seed, for twenty-four hours before planting, in a certain solution, as a protection against the attack of the fly and worm.

It struck me that the same solution might also be a preventive against the ravages of the cotton caterpillar, and I requested some of my friends upon Red River, and in Iberville Parish to procure the solution and to test it. I have lately received satisfactory proof of its success, and take pleasure in making it known to you. The solution is a simple one, composed chiefly of the blue stone, and can be prepared by the apothecaries above named at a very small expense, one dollar being enough to prepare seed sufficient for the planting of one acre.

Yours very respectfully,
WHEELOCK S. UPTON.

COMMERCIAL MISCELLANIES.

NEW TOBACCO INSPECTION LAWS.

An Act to regulate the Inspection of Tobacco in the cities of New Orleans and Lafayette.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Louisiana in General Assembly convened,* That there shall be appointed by the Governor of the State, by and with the advice of the Senate, ten Inspectors of Tobacco for the cities of New Orleans and Lafayette, to be denominated the "New Orleans and Lafayette Board of Tobacco Inspectors."

SEC. 2. *Be it further enacted, &c.,* That said Inspectors shall be appointed for the term of four years, shall take an oath faithfully to discharge the duties of the office, as prescribed by law, and shall each give bond to the State for the sum of ten thousand dollars, (with two sureties for five thousand dollars, each good for the amount, to be approved of by the Treasurer of the State,) for the faithful performance of their duties, while in office; and that each person offering himself as security under this section, shall take an oath, before some competent magistrate, that he is worth what he is surety for. And said sureties shall be liable on said bond, not only to the State, but to all persons who shall have suffered damage by the wrongful act, or neglect, or inattention of said Inspectors.

SEC. 3. No person shall be appointed as Inspector who is not a citizen of the United States, and a citizen of the State of Louisiana.

SEC. 4. It shall be the duty of said Inspectors to organize themselves as a Board, appointing one of their own number as President of the Board, and another Secretary. Seven members shall constitute a quorum. The Board of Inspectors shall have a common seal. In the absence of the President or Secretary, the board shall name a President or Secretary, *pro tempore*. The President and Secretary shall be chosen yearly, and allowed each two hundred dollars per annum for their services.

SEC. 5. It shall be the duty of the President to call meetings of the Board and preside over the deliberations of the same. It shall be the duty of the Secretary to record the proceedings of the Board, and in such manner as to show the votes of each member upon questions submitted to the Board.

SEC. 6. All contracts of the Board, hereinafter provided for, shall be submitted to the Board, and shall be approved of by a majority of the whole number of Inspectors.

SEC. 7. The Board shall have authority to make rules and by-laws for the regulation of its own members in the discharge of their duties, which by-laws shall not be inconsistent with the laws and constitution of the State, nor of the United States, nor the provisions of this act.

SEC. 8. It shall be the duty of the Board to provide suitable warehouses in said cities, two of which shall be located in Lafayette, for the storage of Tobacco, at the lowest rates at which they can be obtained, which warehouses shall be fire proof and floored with plank two inches thick, and provided with a sufficient number of presses, and shall be located at such points in said cities as will be

most convenient for the reception of the Tobacco and for the convenience and interest of those engaged in the Tobacco trade.

SEC. 9. When the Tobacco is brought to the warehouse, it shall be received by the Inspector or Inspectors, allotted to said warehouse, or their clerk, who shall immediately mark with ink the warehouse numbers, commencing with one, and running on to the end of the year, on each end of the cask.

When called on by the owner or agent to inspect a lot of Tobacco, they shall cause the hogshead or cask to be placed at a convenient distance from the press, and under the eye of an Inspector, or their clerk, and cause one head of the cask to be taken out; the cask must then be headed upon the open end, and the whole cask be taken from the Tobacco and weighed. The weight of the cask being the tare, shall be markrd on it with a marking iron.

The Inspectors shall then have the Tobacce broken in four different places, from each of which they shall draw four hands or bundles of Tobacco, which they shall tie up neatly and compactly—the bundles from the top break forming the first layer of the sample. The Inspector shall be careful that the sample shall be a fair representation of the quality of the whole hogshead of Tobacco, as near as they can make it so. The tape or twine used in tying up the sample shall pass through the hands of Tobacco, and a seal of wax shall be put on each sample. One end of the sample-card, which expresses the quality of the Tobacco, the Warehouse number, Inspection number, and initials of the Inspectors' names who have inspected it, shall be put under the seal of wax. When a hogshead or cask of Tobacco is damaged, if practicable, the damaged portion shall be cut off and held at the disposal of the owner or agent. The quantity so trimmed shall also be expressed on the sample-card with ink. If the damage be to such an extent that it cannot be trimmed off, the Inspectors shall refuse to classify said hogshead. They shall give a sample of it, expressing the probable extent of the damage, but without the Inspection seal. If, upon the Inspection of a hogshead of Tobacco, it be apparent that it is falsely or fraudulently packed, said hogshead shall be marked "condemned," and the Inspectors shall refuse to give a sample of it. It shall then be at the disposal of the owner or agents, subject to the same charges as if it had been inspected. If the cask of a hogshead of Tobacco shall prove to be of green or unsound timber, the Inspectors shall provide a suitable cask, at the expense of the owner or agent.

SEC. 10. There shall be two classes of Tobacco, to wit: *admitted* and *refused*.

The Inspectors shall class as *admitted*, all Tobacco they may find to be sound, well cured, and in good keeping condition; and they shall class as *refused*, all such Tobacco as they may find to be soft, high in case, or otherwise unsound.

SEC. 11. When the Inspectors are called upon to re-inspect a lot of Tobacco, they shall make a copy of the original sample-card, and shall write on it, with ink, in plain letters, "re-inspected," and shall give the date of the same.

SEC. 12. When the Inspection of one or more hogsheads of Tobacco is finished, the laborers of the warehouse, under the eye of an Inspector, or their clerk, shall have the cask returned to the Tobacco, and the loose Tobacco shall also be returned; and should it be impossible to put it all in, it shall be held

subject to the order of the owner, and after it is placed under the press, it shall be coopered up, in good condition for shipping, each cask having six hoops. The cask shall then be weighed by an Inspector, or their clerk, and the gross weight marked in ink over the tare weight. The gross weight, the tare, and the warehouse number, shall also be marked with marking irons, by cutting with the same on the bilge of the hogshead or cask, and the cask then stored away.

SEC. 13. The particulars of each day's Inspection shall be recorded in a book, to be kept in each warehouse for that purpose, in which shall be noted all the marks and numbers on the cask when received, the gross weight, tare, warehouse number, inspection number, by whom inspected, and for whose account.

SEC. 14. The samples, and a certificate, *corresponding with the record of Inspection*, shall then be issued to the owner or agent, and shall be a receipt for the Tobacco. This certificate shall be transferable by endorsement or otherwise, *which shall be evidence of its delivery*. When the legal holder of the certificate shall call for the delivery of the Tobacco, it shall be the duty of the Inspectors to have the hogshead promptly delivered at some opening of the warehouse which is accessible by a paved street.

SEC. 15. On receiving Tobacco in the warehouse, the clerk of the Inspectors shall give temporary receipts to the owners or agents, acknowledging the receipt thereof, which they may require to be surrendered upon the issuance of their certificate of Inspection as hereinbefore provided. The Inspectors shall be liable for all Tobacco stored with them, and shall be responsible to all persons interested in the same, for the correctness of their samples and weights. The Inspectors shall have recourse upon the particular Inspector or Inspectors, whose neglect or wrongful act has caused the damage.

SEC. 16. The Inspectors themselves, and the persons employed by them, **are** prohibited from dealing or trading in Tobacco, either in their own names, or in the names of others, or in any manner whatever, or from being connected with, or having any interest in, the business of other persons dealing in Tobacco, or from putting up loose Tobacco in bales or hogsheads, or from being interested in any manner in the warehouses rented by them for the storage of Tobacco, as provided by this law, or from owning or being interested in any of the laborers or coopers employed in the warehouses, or from having any interest in the drayage of Tobacco to and from the warehouses; and upon conviction of the violation of any one of the above prohibitions, the Inspector, or other person so offending, shall be deprived of his office, and shall be subjected to a fine of not less than five hundred dollars, nor more than two thousand dollars, to be proceeded against by indictment or information in the proper courts of the State. And any Inspector, upon conviction or indictment, of giving wilfully a false or fraudulent Inspection, or accepting a bribe in relation to the discharge of the duties of his office, shall be deprived of his office, and shall suffer imprisonment in the Penitentiary, not less than three months, nor more than two years.

SEC. 17. That all Tobacco shall be inspected by two Inspectors, in the presence of each other; and in the case of disagreement between them, a third Inspector shall be called in, who shall decide upon its quality.

SEC. 18. That all Tobacco brought to the cities of New Orleans and Lafayette for sale, shall be inspected before it is sold, under the penalty of fifty dollars for every hogshead or cask sold without inspection, to be recovered of the party violating this law, at the suit of any Inspector, one-half of which shall be paid to the State, and the other half to the Inspector sueing. There shall also be a privilege upon the Tobacco; into whosesoever hands it may be placed by the sale, for the above penalty. The suit to be prescribed against, if not brought within twelve months from the time of sale. *Provided*, that nothing herein contained shall be so construed as to require the inspection of Tobacco in carrots, boxes, bales, stripped or stemmed Tobacco, or Tobacco stems in hogsheads, boxes, or bales, or damaged Tobacco sold by order of the Port Wardens, on the Levee, or of Tobacco intended for re-shipment without sale, unless at the request of the agent or owner of the same.

SEC. 19. The Inspectors shall not inspect Tobacco at any other warehouses than those provided, as contemplated by this law.

SEC. 20. The fees for receiving, weighing, inspecting, storing for two months, coopering, and all other duties imposed by this law upon the Inspectors, shall not exceed two dollars and fifty cents per hogshead, one half of which shall be paid by the purchaser to the seller. For re-inspecting, re-weighing, and coopering, the charge shall be seventy-five cents for each hogshead.

On Tobacco remaining in store more than two months from date of receipt, they shall charge extra storage at the rate of twenty-five cents per month. On Tobacco stored on which there is no inspection, fifty cents per month. The owner or agent storing the Tobacco shall be bound for the fees, and there shall be a privilege upon the Tobacco for them.

SEC. 21. The Board of Inspectors shall be allowed to employ two clerks for each warehouse, to hold their places at the pleasure of the Board; the first to receive out of the funds hereinafter provided, at the rate of and not exceeding one thousand dollars per annum, the other not to exceed six hundred dollars. The Board shall also be allowed to employ a sufficient number of laborers and coopers for each warehouse.

SEC. 22. Should any vacancy occur in the Board of Inspectors, by death, resignation, deprivation of office, or from any other cause, it shall be the duty of the Governor to appoint as soon thereafter as it may be deemed by him expedient, a competent successor, subject to the ratification of the Senate, as other civil appointments made by the Governor; and the Inspector so appointed shall in all respects conform to the requirements of this act. All appointments under this section shall be for the unexpired term of four years.

SEC. 23. The Governor, by and with the advice and consent of the Senate, shall appoint a competent person, who shall be a citizen of the United States and a citizen of the State of Louisiana, to act as Treasurer to the said Board of Inspectors—the salary of the Treasurer shall be two thousand five hundred dollars per annum.

The said Treasurer shall take an oath faithfully to discharge the duties of his office, and shall give bond with two good securities in the sum of ten thousand dollars each, for the faithful performance of the duties of his office, to be

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approved of by the Secretary of State, and each security make oath that he is worth the amount for which he is security, over and above all his debts. In case of a vacancy in said office, the Governor shall supply the place with another officer as soon as practicable, in the same manner pointed out by this act for the appointment of Inspectors in case of vacancy.

SEC. 24. It shall be the duty of the Treasurer to keep the books and accounts of all moneys received and disbursed, to collect all fees and provide for the safe keeping of them, to pay all expenses incurred; all bills of which to be approved by the Board of Inspectors. He shall, at the end of each month, pay to each Inspector, (all other demands upon the Treasury being satisfied) equal portions of any moneys in his hands, provided that these payments do not exceed, to each Inspector, a salary of four thousand dollars per annum, at the close of each year, commencing the first day of November, 1846. Should there be any balance in his hands after paying the various clerks, laborers, rents of warehouses, and all the expenses of the Inspection as provided by this law, it shall be appropriated as follows:—That the surplus fund remaining in the hands of the Treasurer of the Tobacco trade, shall, at the end of each year, be deposited in the hands of the Treasurer of the State, to be held as a reserve fund for the benefit of the Tobacco trade of this city; that, at the discretion of the Legislature of the State, said fund may be from time to time invested in the purchase of ground and erection of buildings thereon, for the storage of Tobacco, the object being thereby to reduce the charges in Tobacco brought to this market, the Legislature having the power at their discretion to dispose of property so purchased, and buildings erected, and reinvesting for the same purposes the amount received, whenever it shall be desirable by the increase of the city and advanced value of such property.

He shall furnish to the State Treasurer monthly abstracts of all moneys received and disbursed by him, which shall be approved by the Board of Inspectors. The Treasurer shall be prohibited from being interested in any manner in the warehouses, or in the hands employed about the warehouses, as provided by this act. For any wilful violation of the duties of his office, the Treasurer may be proceeded against by information or indictment, and on conviction thereof, shall be deprived of his office, and fined not less than five hundred, nor more than two thousand dollars.

For any corrupt or fraudulent conduct in the discharge of the said office, or for any defalcation in the payment of the funds entrusted to the said Treasurer, upon conviction on indictment or information, the said Treasurer shall be imprisoned in the Penitentiary, not less than three months nor more than five years. But nothing in this act shall be so construed as to exempt said Treasurer from liability in civil suits for any damage or loss any party or parties may have sustained by the neglect or wrongful act of said Treasurer.

SEC. 25. That the books required by this law to be kept by the Treasurer, the Board of Inspectors, and the clerks of the warehouses, shall at all times be accessible for examination by the executive officers of the State, and all persons interested in the examination thereof; and all the entries shall be evidence against the Inspectors and the officers keeping them, in civil or criminal cases.

SEC. 26. Nothing in this law shall be so construed as to authorise any charge upon the Treasury of the State for any of the salaries or expenses provided by this law—the fees of inspection being the fund out of which they are to be paid.

SEC. 27. This law shall go into effect from and after the first of November, 1846. The Governor shall nominate the Inspectors and Treasurer, under this law, at least two months prior to the time of its going into effect.

SEC. 28. All laws for the Inspection of Tobacco heretofore passed, are hereby repealed, from and after the time that this act shall go into effect.

LAW OF BEEF AND PORK INSPECTION.

SUPREME COURT OF LOUISIANA, Monday, June 22.

Pardos v. Bozant.—Appeal from the Commercial Court.

The plaintiff purchased seven hundred barrels of pork certified to be prime inspected pork, and branded such by the defendant in his official capacity of Inspector.

The pork was shipped with the usual care, and sent to New York, where it was landed in good order after a voyage of twenty-one days performed in fair weather, and without accident of any kind.

Before its arrival it was sold by the plaintiff's correspondent at a certain price, to be paid on delivery, provided the quality corresponded with the certificate given by the defendant, and sent on with the bill of lading. On inspection in New York, it proved to be all sour, and so inferior in quality that the purchaser refused to receive it. It remained on hand some time and was finally sold to other persons at a reduced price.

This action has been instituted to recover from the defendant the difference between the two prices, on the ground of negligence in the inspection or re-packing of the pork, and misrepresentation in the certificate. The case was submitted to a special jury of merchants, who gave a verdict in favor of the plaintiff for the sum claimed. The defendant moved for a new trial, which was refused, and judgment having been rendered in conformity with the verdict, he appealed. The record contains an exception taken by him to the charge of the judge, which is in these words: The court in this case charges the jury that the defendant was only liable for neglect or fraud, or contravention of the law; that whether neglect arose from unskillfulness, ignorance, inattention, or want of care, the defendant was equally liable; that the court considered that an inspector of beef or pork when he gave a certificate that beef or pork was in a good or sound condition, was bound by such certificate to warrant not only that the beef or pork was in a good and sound condition at the time the certificate was given, but that it should remain so for a reasonable and usual length of time, if the article was handled with proper care and not improperly exposed; that our law did not fix any length of time during which the responsibility was to last and terminate; that in the absence of any fixed rule, a responsibility

would attach for such length of time as the nature of the article was usually expected to preserve good; that if the plaintiff has proved that the pork has been properly handled and taken care of, and it was found that the article was spoiled before the lapse of a reasonable and usual period, the defendant would be liable for any damage which might arise from the unsound condition of the article; and that it was for the jury to say whether

First, The article was unsound on its arrival in New York.

Second, Whether any circumstances had occurred which relieved the defendant from his liability from the certificate which he had given, and from the liability which he was under by law.

We consider this charge to the jury, a lucid and sound exposition of the law applicable to the case. One of the main advantages of the inspection of such commodities is to give security to commerce, and to increase the confidence of purchasers abroad in the soundness of provisions found in our market. If those objects are not attained, the heavy expense attending the inspection is incurred without adequate motives, and the only mode of securing them is to hold the inspectors responsible for want of ordinary diligence in the discharge of their duties. In doing this care, must of course be taken that the security thus given to commerce be not abused to the injury of inspectors. In this latitude and especially for shipments made during the summer months, their responsibility should be limited to a shorter period than that established by the laws of New York.

In this case the jury have substantially found that pork shipped with care and well stowed in New Orleans, between the 29th and 31st of July, forming part of an assorted cargo of provisions, cotton and tobacco, and landed in good order in New York, after a prosperous voyage, on the 28th and 29th of August next following, could not have become sour during the voyage, and that it must therefore have either been unsound, when it was shipped, or, what is more probable, have been repacked too fast, and without proper care, after the inspection here.

A careful perusal of the evidence has brought us to the same conclusion. The amount of damages authorized by the verdict is authorized by the facts of the case, and there is nothing in the judgment which requires our interference.

It is therefore ordered, adjudged and decreed, that the judgment of the Commercial Court be affirmed with costs.

MINERAL RESOURCES OF WISCONSIN.

Dr. Owen declares the lead region of Wisconsin to contain mines of lead which are inexhaustible, and "decidedly the richest in the known world." He supposes it to be capable of yielding more than one hundred and fifty millions of pounds of lead annually, which is more than is now furnished by the entire mines of Europe, including those of England, which yield about 98,700,000 of pounds annually. Wisconsin is emphatically *the lead region of the world.*

Mr. Owen's observations in 1839, on the copper of Wisconsin, fully accord, so far as they go, with the wonderful disclosures that have recently been made. He then predicted from his geological knowledge, that richer mines of copper would be found in the northern parts of Wisconsin, where the igneous, metamorphic, crystalline rocks come to the surface, these being the rocks which in Cornwall, England, produce copper. The north parts of Wisconsin, on Lake Superior, have since been explored, and the most incredible quantities of copper, mingled with silver, have been found. The dip of the rocks in Wisconsin being south, the lowest strata would be found to the north. The copper ore of Wisconsin is about one-third richer than that of England; indeed, European mines, which afford only three per cent. of copper, pay for the working, after raising the ore from a depth of more than 2000 feet—a fact showing the immense value of the Wisconsin mines.

Zinc is also found in vast quantities among the lead and copper, in the form generally, of an anhydrous carbonate. The miners call it "dry bones," from its resembling the cellular substance of bone. Sometimes a vein of lead becomes entirely a vein of zinc, and then the unscientific workmen declare that "the dry bones have eaten out all the mineral." It is regarded as quite worthless by the miners, and considered a nuisance. Thousands of tons of it are thrown away by them, as a worthless drug. It is a true carbonate of zinc, and contains about forty-five per cent. of pure metal. When it is considered that vast quantities of zinc are imported into this country from Europe, it is a matter of surprise that so much of it should be annually thrown away in Wisconsin. How important an article of commerce zinc is, may be inferred from the fact, that there are about six millions of pounds annually imported into England. Its use in the arts is very extensive. From 13 to 25 per cent. of all brass, is zinc. The mines of Wisconsin could probably supply the world with zinc.

In iron, also, Wisconsin is equally rich; but the iron, like the zinc, is a mere drug. Indeed, for some reason or other, it is thought better to import from England into this country, millions of dollars worth of iron, when we have literally mountains of it here, in every direction, with the most unparalleled facilities for its manufacture. In the production of iron, lead, copper, zinc, all the more useful metals, we might rival the world.

Wisconsin, in respect to natural advantages, is scarcely rivalled by any state in the Union. It is not only immensely rich in mineral wealth, but is mostly a region of fertile soil, capable of yielding an unlimited supply of agricultural products common to that latitude, and of engaging in manufactures to any extent. Its numerous streams afford an immense water power; and with the largest lake in America on the north, Lake Michigan on the east, and the Mississippi on the southwest, its facilities for commerce are not surpassed. Like an island in the ocean, it is bounded on every side by navigable waters, and its products, of whatever kind, can float with equal ease to the Gulf of Mexico, or to the waters of the Atlantic.—*N. O. Bulletin.*

SOUTHERN AND WESTERN STATISTICS, AGRICULTURE, &c.

THE VALLEY OF THE RIO GRANDE.

If the extension of our institutions is to be *Southward*, and there is to be any permanent acquisition of territory beyond the Nueces, the question occurs—what are we to gain? A sterile region like that of Oregon, would scarcely be worth the conquest, and the blood and treasure. The valley of the Rio Grande is the first thing we are contending for—what is this valley? Let one who is familiar with it speak:*

"Indeed this extensive valley presents throughout its whole extent, almost the same geological characters as that of the Nile, and its soil being composed of the detritus of similar rocky formations, must be similar in its chemical constituents. It is true that the valley of the Rio Grande is not subject, like that of the Nile, to annual inundations: but it is more favored in its climate, as the rains fall so frequently, and in such quantities, that the crops seldom fail from drought. If a system of agriculture similar to that which is in use in Upper Egypt were introduced in this valley, it would doubtless become fully as productive as the most fertile lands of that country. This is evinced by the wonderful productiveness of the soil in the vicinity of the beautiful and flourishing town of El Paso, where, by a judicious system of irrigation, the most abundant crops are raised with comparatively little labor. We are confident that in a very short period of time the Egyptian cotton will be cultivated here to as great or even a greater extent than in the valley of the Nile. The few experiments that have been made in the culture of cotton in the vicinity of Matamoras, have been remarkably successful. The cotton plant grows in this region with wonderful luxuriance, and yields an abundant crop almost without culture. The sugar cane also here grows to an enormous size, and far exceeds in its products the cane of Louisiana or any portion of eastern Texas. The climate is so mild in the vicinity of Matamoras, and as high up as Camargo, that the cane is seldom touched by the frost until it has attained a size nearly equal to that it attains within the tropics. The frosts, too, are generally so light that they mature the cane at an earlier period than it would mature within the tropics; while at the same time the product of sugar is rather increased than diminished. It has been remarked by naturalists that tropical plants are more productive without the limits of the tropics, and near the northern limits of their growth, than they are near the equator. If this doctrine is correct, the culture of the sugar cane will be found more productive in the lower portion of the valley of the Rio Grande than it is even in Cuba. Many valuable tropical fruits may also be cultivated in this section with great advantage. The orange, fig, pomegranate, and similar fruits, grow with wonderful luxuriance in the vicinity of Matamoras and Camargo. The portion of country extending from Point Isabel to Laredo, will, probably, at no distant day, be covered with extensive plantations of sugar cane, Egyptian cotton, and groves of oranges, lemons, figs, olives, and other tropical fruits, and rival in beauty and loveliness the fabled gardens of the Hesperides."

THE COTTON CROP OF 1846.

We forbear an expression, in figures, of the amount, though we have made some calculations. The falling off must be very great. Louisiana has suffered fearfully—but what State has not suffered? The results of this season must be momentous.

1. *Prices will advance in more than the ratio of deficiency*—this is a rule of trade; and in relation to bread stuffs, scarcely less important than clothing, a deficiency of half is estimated to raise prices five fold.

2. *Old Stocks will be worked off*, and Cotton growing and Cotton manufacturing States be brought in nearer union.

3. *Consumption, which has gained upon production, will keep pace with it on the opening of new and wider markets.*

4. *The Cotton interests must revive and prosper.*

* Editor of the Houston Telegraph.

INDIAN CORN FOR 1846.

Another failure in Europe and a large crop at home—*these will excite speculation.* Would to heaven that there could be more consideration than in last year. This great granary of the world—for nature has made it so—has a high destiny to fulfil; and the laws of trade should be studied among us as well as those of polities. We had hoped to devote more time to this subject now, but must be content with a short extract from *Lloyd's Commercial Journal*:

"Our last accounts from the Western States, as will be seen by the Journal this week, show that an advance in the price of corn has taken place in those markets, and in St. Louis in particular, from 10 to 12 cents per bushel, it having gone up in a week from 18 to 28 a 30 cents, and the market closed firm. These high prices may induce farmers to send their surplus yield forward immediately on getting their crop ready, and so they should do; for it will be borne in mind, that English orders always come out as soon as there is the smallest appearance of a deficient crop on that side of the water, and the receipt of those orders here impart an active impetus, and prices immediately go up—and not unfrequently go down again soon after; but as we have said in these remarks, we think that there are indications now of prices being sustained—but *they must go higher in Liverpool* than 35 to 36s. per quarter, the last quoted rates, to secure to shippers here a remunerating price. And then, if the article gets up among the high priced elements of food, it must in its turn again give way to some lower priced ingredient."

LOUISIANA HISTORICAL SOCIETY.

The *Iberillian*, a new journal established in the interior of our State, remarks:—"One of the principal objects we had in view when we commenced our publication, was to give a series of articles on this parish. It was in our intention to divide them into the following heads; geographical, statistical, historical, and miscellaneous. It is our wish to commence the publication of these in the course of the next month," etc.

Now we applaud this determination of the *Iberillian*, which should entitle it to a civic wreath. We can never have the history of our State until this is attended to by every Parish. Witness the laborious pains which have been taken by Massachusetts in her twenty or thirty volumes of Historical Collections. Would this not be an agreeable, dignified and most useful employment for our editors all over the State.—As one of their number we suggest the subject to their *immediate* consideration. The Historical Society of the State would be grateful for their labours. *Let this matter not be talked about, but done.* We will look to the Parish of Orleans.

PUBLISHING BUSINESS.

Hunt's Merchants' Magazine, for October.

Bankers' Journal, for October, Baltimore.

The importance of our national commerce is becoming now very well understood. It is an arm of our greatness, growing stronger and stronger every day. The time is not distant, when young America shall snatch away the sceptre which hoary Britain has waved so long over the seas. She may not "rule" alone. We could not be jealous yet of her *equality*; for there is this we venerate in her, that she is *free*, and that her empire is at last one of *peace*.

But to the works before us. We are rejoiced to see, that *commercial* information is now held in such regard by our countrymen. They liberally sustain all efforts to diffuse widely the information, without which our adventures must be in the dark. There is no journal in the world, perhaps, certainly none in our country, abler conducted and better sustained than *Hunt's Merchants' Magazine*. We are proud of it. The *Bankers' Journal*, of which we have published on our cover the table of contents, it will be seen occupies a field full of interest. The matter is invaluable. Such a work cannot but be taken under the immediate protection of all interested in any way with the fiscal concerns of a nation as wide as ours; and who is not interested?

The Farmers' Library of Agriculture, by J. S. SKINNER, Esq.; New York.—September Number.

The October number not received. We quarrelled once with Mr. Skinner, for his philipic against the patent office; but in other respects have no reason to qualify the high terms in which we have, on previous occasions, spoken of his work.

Norman's Southern Agricultural Almanac, for 1847. Edited by THOS. AFFLECK, Esq.

This, we understand, is the first of an annual series; and it is disposed of, we believe, at the mere cost of publication. The idea is a good one, of making the hitherto very often absurd Almanac, a repository of most valuable and practical information. Agricultural publications from a distance are all snatched up among us very quick—but will we cherish any at home? Calculations for other climes will *not* suit ours altogether. Let our charity at least begin at home too; though God forbid that it should end there. We wish Mr. Norman's Almanac good sale; and by the way, our planters would lose nothing in looking over the Agricultural works with which he is now storing his shelves.

Now Address before the Philodemic Society, of Georgetown College, by Lieutenant MAURY, U. S. Navy, 1846.

Mr. Maury here is strewing flowers over the rugged field of science. He seizes upon the attractive and the beautiful, and presents it in strong colors. We are taught that if there is no beauty in *metaphysics*, there is at least much in *physics*. There is something striking too, in what he says of *the herb, the grass, and the fruit tree*, that they are but *condensing machines*, and that the whole power of vegetation is dependent upon the *yellow ray* of the solar spectrum. These are the marvels of *truth*. Lieutenant Maury has done much himself for the advancement of science among us.

Acts of the Legislature of Louisiana, for 1845-6

We complained of the volume in our last number, but are glad to have it at all events, and to study it carefully. There is much in it really good—indeed, very little that is otherwise. Our new Constitution and the laws under it must work well. But about the University and the System of Common Schools we were to have—what of them? These will of course be the first object of attention at the next session. If the motion be slow, let it at least be sure—and in advance. We shall have an article soon on the University and Schools.

The Office of Sheriff under the Common and Statute Law, adapted to Alabama, Mississippi, etc.; by BENJ. F. PORTER, Tuscaloosa, Ala.

This will be useful in any State. Judge Porter is an enlightened jurist, and one of indefatigable application. He has been an enthusiast in the study of the civil law, and it is said, is preparing an edition of *Heinneccius* in English. He was made professor of law in the University of Alabama. We have put his work on the *Sheriffalty* in our law library, in the expectation of having use for it in our *practice*, and of gaining *practice* in the use of it.

Mexico: by HON. WADDY THOMPSON.

We have now the *fifth* edition. Every body reads about Mexico, and it appears that every body reads General Thompson's work. There is some plain speaking in it for a minister—but Mr. Poinsett who is also high authority has, in our Review, approved the publication and dissented only from a few of its views. Who will give us something more upon Mexico; for example, its future influence upon our commerce?—*we mean when it is ours or open to us.*

MORGAN, by the post-office, who is always in a good humour and no wonder, when he has such shelves, and counters of interesting and amusing literature, and such crowds of customers who allow him no peace. — Morgan we say has the book.

Southern Agriculturist, Charleston, S. C.

Southern Literary Messenger, Richmond, Va.

The former work has a few subscribers *here*, we should be pleased if it had a great many. The *Messenger* is a popular miscellany, and adapted to all classes. If it is *light* in some of its pages, there is no dissipation of thought, and if it is *grave*, there is no

dullness. Men of books read the work, and do not put it then with the *Edinburgh* upon their shelves, but in their parlors with Graham's.

Martin's Reports of cases argued and determined in the Superior Court of the Territory of Orleans, and in the Supreme Court of Louisiana. Comprising Orleans Term Reports 1 and 2, and Louisiana Term Reports 1, with marginal references, by THOMAS GIBBS MORGAN, Esq.

"Ces Tribunaux des décisions; elles doivent être conservées; elles doivent être apprises pour que l'on juge aujourd'hui comme on y a jugé hier, et que la propriété et la vie des citoyens y soient assurées et fixées comme la constitution même de l'état."

Instruction de l'Imperatrice de Russie pour la commission chargée de dresser le projet d'un nouveau code des lois. Art. 101.

Vol. 1. New Orleans: SAMUEL STEWART, 1846.

We have given the whole title of an exceedingly handsome and most valuable volume. The Bar of Louisiana, as of the whole Union acknowledge the labors of Judge Martin. This edition by Mr. Morgan, published by Stewart, will be of eight volumes at \$5 each, 750 pages. The elder lawyers tell us that when Martin was published many years ago, they paid *seventeen dollars* each for small volumes, not the fifth of the one before us. These must have been good times for the bar—*seventeen dollars!*

Bibliotheca Americana. Paris, 1840.

A friend near Baton Rouge, presented us a catalogue of valuable works on America, which the late Judge Porter brought from France, in the hope that Louisiana would be induced to purchase the library, then offered for sale by its owner in Paris for \$5,000, we think. There were 1979 volumes, 12 atlases, 121 maps, charts, and plans, 9 medals, and 2 prints; many rare and valuable works, among the rest upon LOUISIANA, and very ancient. We know not what has become of the library, and we feel too sad to inquire—it is but likely Louisiana *has lost it*. When will another opportunity like this be presented? *We have no historical library!*

EDITOR'S NOTE.

In relation to the matter of Caterpillars so universally attracting the attention of the planting interest, we have received, in addition to the note already published, a letter from a planter in South Carolina which is too late for insertion. We, however, give an extract, in the hope of being able to publish the whole at some other time:

"So soon as a field or a part of a field is relieved of its crop, cut down all the stocks and set fire to them some clear dry day, and cause the fire to run over the field. If the stocks do not furnish a sufficiency of materials, pine or oak leaves should be added. The stumps and standing trees will take fire and the deposit of the eggs will be reached by the flames, and the origin of the caterpillar and fly destroyed."

We have on hand several other communications upon agricultural subjects which will soon appear.

The present number contains a large stock of Commercial matter, and to this department henceforward shall the utmost labours of the editor be directed, in which he will be sustained by a body of able and practical contributors. Need we then commend our *established* enterprise to the *mercantile interests?* Indeed, they have already come out most liberally in our support.

Will those of our country subscribers in this and in other States, remit us their small amounts, if they have not already done so. Our terms are always *in advance*, and yet very many have delayed a *whole year*.

We have received many late publications but too late to be noticed, among others Thorpe's *Rio Grande, Conquest of Peru, North American Review, Whig Review, Brownson's Quarterly, Bankers' Journal, Graham's Magazine, Columbian and Ladies Magazine*, and the *Law Reporter*.

Our subscription list having increased very rapidly, we have had to make arrangements to reprint all the back numbers of the Review, which will be done by the early part of next year. The work will then be much enlarged, printed upon stouter paper, with improved covers embellished in handsome style. No labour will be spared to make it equal in every respect to any other work in the Union.

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TO THE MERCANTILE INTERESTS.

We have rested our enterprise upon your support, and its success has exceeded our *expectations*—will you allow it to equal our *hopes*? The present number of the Review, which concludes the first year, is an indication of what we *intend*. Our great commerce deserves an expositor and an advocate—shall it have one, and will you maintain it? Maintain we say, not in mere life, but in freshness, vigour, and in power. We have not the fortune at command to execute, in the manner we have conceived, the design. The means *will come from you*, and we ask them not hesitatingly, because in every case, disposed to refund with interest, if there be not deemed an equivalent given.—Double our present subscription list, will enable us to move, as we can see the way, though we *can move as we are*. The revenues are, and shall be sacredly administered for the work. The plan we have conceived, WE WILL EXECUTE.

BUREAU DE LA REVUE COMMERCIALE, {
Nouvelle Orléans, 1er Décembre, 1846. }

Aux Planteurs, Marchands, et autres Citoyens, qui font partie de la population française de l'état de la Louisiane.

Les citoyens les plus distingués de l'état, dans ses différentes sections, ayant exprimé le désir d'avoir une édition de cette revue en langue française, nous nous empressons de leur faire la réponse suivante :

Nous nous engageons à commencer, l'année prochaine, la publication de la Revue en français et en anglais. Les mêmes matières y seront traitées dans les deux langues. Mais nous ne pourrons remplir cette obligation, qu'autant que nous aurons obtenu un nombre suffisant de souscripteurs pour défrayer nos dépenses, car nous laissons de coté toute question de gain ou de profit.

Cet ouvrage, d'une composition typographique extrêmement soignée, contiendra 200 pages, où la partie française sera en regard de la partie anglaise, et paraîtra mensuellement ; et sera d'un volume double des autres ouvrages périodiques du même genre, aux Etats-Unis, et son principal but sera de contribuer au développement de la prospérité de la Louisiane et de tout le sud-ouest de l'Union.

La souscription sera de \$ 10 par an, payables à l'avance. Pour cette somme, les souscripteurs auront droit à douze Numéros mensuels, et recevront, à la fin de l'année, deux volumes élégamment reliés, de 1200 pages, chaque, pourvu qu'ils remettent en bon état au bureau de la Revue les numéros reçus dans le courant de l'année.

L'édition actuelle de la Revue anglaise continuera comme par le passé. Nous espérons que les feuilles françaises dans l'état voudront bien aider notre entreprise de toute leur influence et s'en constituer en quelque sorte les agents. Nous avons voulu, par cet appel aux planteurs, marchands et autres citoyens français ou d'origine française, qui forment une partie si importante de notre population, mettre à l'épreuve leurs disposition pour nous en particulier et pour tout ce qui est relatif à la propagation des lumières. Quatre cent noms suffiraient pour nous mettre à même de commencer et de continuer notre entreprise avec succès.

J. D. B. DE BOW,
Editeur et Propriétaire.

From the above it will be seen, that in answer to numerous solicitations from different parts of the State, we have proposed an edition of the Commercial Review during next year, in French as well as in English. The conditions are that 400 subscribers at \$10 each are received, this being requisite to defray the expense, which is all we want. The work will be published, if published at all, monthly, in alternate pages of French and English—making at the end of the year 2 volumes of 1200, or 4 volumes of 600 pages each. The present English edition at \$5, will of course, not be affected by this arrangement.